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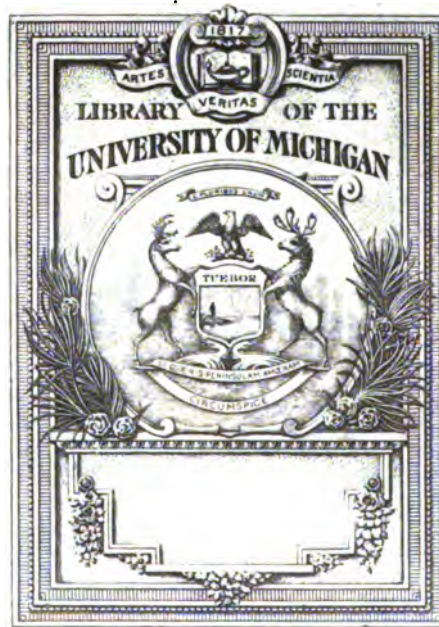
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Gen. Lit.



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STATE OF WISCONSIN. Public documents.

GOVERNOR'S MESSAGE

AND

ACCOMPANYING DOCUMENTS

DELIVERED TO THE

LEGISLATURE IN JOINT CONVENTION,

Thursday, January 11, 1878.

VOL. II.

BY AUTHORITY.

MADISON, WIS.:

DAVID ATWOOD, PRINTER AND STEREOTYPED.

1878.

Exchange Duplicate, L. 1

DOCU

13. Fish Commissio
14. State Board of C
15. Railroad Comm
16. Superintendent
17. Geological Surv
18. Soldiers' Orpha



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MARCH 1930

FOURTH
ANNUAL REPORT
OF THE
COMMISSIONERS OF FISHERIES
OF THE
STATE OF WISCONSIN,
FOR THE
FISCAL YEAR ENDING SEPTEMBER 30, 1877.

*To the Honorable, the Governor, and the Legislature of the State
of Wisconsin:*

GENTLEMEN — The first recognition by the state of the importance of propagating fish by applying human skill, or, as it is called, "artificial propagation," was in 1873, when, by an act of the legislature, chapter 211 (G. L.), five hundred dollars were appropriated directly to Prof. S. F. Baird, United States Commissioner, of Fisheries, to be expended as provided in that act. In 1874 (chap. 253), three hundred and sixty dollars were appropriated for like purpose, and fish commissioners residing in the state were appointed to expend it in promoting fish culture. In 1875 (chap. 222), two thousand dollars were appropriated for like purposes, and in 1876, the liberal sum of ten thousand dollars was appropriated (see chap. 307), and the commission enlarged by adding a fourth commissioner, and the governor, *ex-officio*, was also made one of the commissioners. In April following, the commission organized and entered upon the work assigned it, and at that date, the real work of the commission

commenced. The small sums then
quate to the field of labor, but not
action of the state in recognizing
tention of our people to its gre
safely assume that no state enterp
couragement and support than t
results of our expenditures and of
or a year; the millions of fry de
streams, must have time to mature
fish here and there, and we know
develop and grow, and materially
of our people. The states which
for the past eight or ten years ar
outlay, and there is no abatement
the work. The national govern
work for this object, takes the l
aid and encouragement to the sta
provided with fish commissioners.
two fully organized in this indu
backward step. All the leading
in money, and in encouraging ski
our Canadian neighbors are also
gy and great profit.

It is less than thirty years sinc
was commenced in Europe; now
growing of grapes or grain. Wh
the increase, the supply is inexha
states, had not the ingenuity of
and artificially propagate the fi
ponds, and rivers, would long sir
habitants. While this system of
tively new to our *higher* civiliz
the heathen and barbarous natio
notably the Chinese, have for
largely upon fish reared in aid of
far greater profit than an acre of

So much is published in respec
icals, in our reports of United S
in the great educator of the pec

etofore appropriated were inadequate without beneficial results. The this new industry called the at importance, and we may now ise is more worthy of public en- is. It is not expected that the our labor can be seen in a day, isited in our lakes, rivers and

We have planted a colony of f no reason why they should not contribute to the food resources ave been engaged in fish culture reaping a rich return for their n the public desire to continue ent, in its appropriations and id, and is untiring in extending s and territories of the Union

Of these there are now twenty- ry, and no one has yet taken a vernments of Europe extend aid d labor, in fish propagation, and shing the work with great ener-

the artificial propagation of fish is as firmly established as is the

the consumption of fish is on tible. In these densely settled in devised some means to save r tribe, their inland lakes and

have been depleted of their in- tificial propagation is compara- on, we are forced to admit that of the world, and among them, nturies sustained their people ture. An acre of water nets a id.

o fish culture in modern period- es and state fish commissioners, , the newspaper, and so much is

now being known from practical demonstration, and from personal observation, that it is not deemed necessary, in this report, to enter into a discussion of the feasibility — nay, the necessity — of making ample provision to replenish our public waters with fish, and to protect those yet inhabiting them. The decrease in the take of fish, not only in our great lakes and bays, but in our inland lakes and streams, has been gradual and marked for a series of years. If the wholesale destruction continues, and no adequate supply provided, it is certain the decrease must continue, and one of our great industries dwindle to nothingness. Neither need we tell the representatives of the people of Wisconsin that their state is magnificent and grand in her water capacities for fish culture. If our waters were stocked with fish to their fair capacity, the yield would exceed that derived from beef, poultry and pigs.

There is not a spring of water bursting from our thousands of hill-sides, and meandering through the pasture and the meadow, which is not capable of supporting thousands of speckled trout, with a small outlay in the construction of ponds. The boys and girls can rear them with less of labor and expense than that bestowed upon the harem of hens—while the pleasure and delight attendant upon the work is a reward in itself. The time will come when these rivulets of spring water will be turned to a higher account than as a mere watering place for stock. The example of the state in stocking public waters will be imitated by individuals in stocking private waters. A good fish pond or two, stocked with fish, would be no mean acquisition to the attractions and value of a farm. With a little well-directed labor, the fish crop will never fail. In their pure element they are subject to no scourge. Here, upon the quiet farm, they are not frightened by the puffing of steam engines and the dashing spray of water-crafts; the offal of sewers, the filth of oil-refineries, the washings of breweries, of stills, of gas-works, have no poisons which reach them; the obstructions of dams, the accumulation of sawdust, the floating of rafts over spawning beds, are not among their calamities; and here, too they are protected against worse than barbarian hands which deem it a merit to slay a fish when about to deposit her thousands of eggs in the effort of nature to survive in spite of their endless combinations to destroy.

A reference to the states already provided with fish commission

ers will show that the expenditure corresponding spirit by the state devoting much labor in propagating. Upper Canada is doing her full part. It has a large hatchery for these varieties. In 1876, it had a capacity for doubling that number. It has their full share, and the reports are encouraging. We beg leave to assure that the fisheries are meeting Wisconsin full justice on our great lakes. So soon as the season is opened up, that region should receive its share of Superior white fish and trout a world. All that region of countess lakes—many of the streams have many yet remain. Notwithstanding, however, being slaughtered in great quantities. It is reported of 1,500 pounds being taken a day ago, by means of nets, and ships. A countable reason, good friends, is that slaughtering goes on.

This complaint is not confined to any one State. It is general in all the States. In Canada, where fish wardens, the waters are generally open.

We beg leave to call the attention to the necessity of taking steps to construct dams over and across the rivers. It has a legal right to obstruct the flow of their native waters. Very many fish are being taken by wholesale at the time when the fish are making their spawning beds. These dams are a proliferation. We are aware of the fact that in many ways would entail considerable expense, which we shall regret; but the way is open, whatever the cost. A few years ago, \$85,000 appropriated (we think) to the Atlantic Ocean, would build all the fish

ures of our state are being met in a
ates contiguous to us. Michigan is
ating the white fish and lake trout.

share. The Canadian government
varieties at Windsor, opposite to De-
ty for hatching 25,000,000 eggs, and

Minnesota and Iowa are also doing
from those states are highly gratify-
the legislature that these communi-
l half-way in the matter of stocking
the northern part of the state is fully
receive careful attention. The Lake
are the best fresh water fish in the
ntry is full of cold, clear, deep-water
have been full of speckled trout, and
ending severe penal statutes, they are,
n a cruel manner. One case is re-
taken by one person, a year or two
ipped to Chicago. For some unac-
s to fish hesitate to prosecute, and the

ed to this state. It seems to be gen-
ada, by the judicious appointment of
generally protected.

attention of the legislature to the ne-
mpel the making of fish-ways around
ross our rivers and streams. No man
the free passage of fish up and down
any cases are being reported of fish
the foot of dams at seasons of the year
air way up stream to their spawning
lific source of injury to the fish. We
n many cases the construction of fish-
ble expense upon mill-owners. This
ays should be constructed, no matter
ago the legislature of Pennsylvania
000 to build fish-ways upon the tribu-
within her borders. A few thousand
fish-ways needed in this state; and in

the future, no stream should be allowed to be obstructed without
provision being made for the passage of fish. At common law, and
in the absence of any statute on the subject, the rights of the peo-
ple in running streams whether meandered or not, are inviolable.
Every owner of a mill-dam can be compelled to construct fish-ways.
We do not believe that prescription can confer the right to shut
off the free passage of the fish the entire length and breadth of the
stream in which they swim. It would be against public policy and
in derogation of private rights.

In accordance with our own views, and in compliance with the
urgent request of many of our citizens, and some of them mill-
owners, we earnestly call the attention of the legislature to this
subject.

In our last report, we gave a full account of our operations at
Milwaukee and Madison. At the former place we are still pen-
sioners upon the liberality of the city. We have at their water-
works very superior accomodations for hatching purposes. The
city gives the commission water and space. How long the city
will thus deal with us, we are unable to say. But from her city
government we are glad to acknowledge, that we have met with
liberal encouragement, and not only from the city, but from the
employees having in charge the city's work. The throng of visitors
to this establishment during the hatching season is numbered by
thousands. The uniform kindness extended to visitors by the per-
sons in charge of these works is mentioned by Supt. Welsher
in the warmest terms. It is quite natural that the public curiosity
should be excited at the idea of propagating fish by artificial, yet
natural, means, and the hatcheries at Milwaukee and Madison have
been visited by very many incredulous persons. The book of reg-
istry at the Nine-Springs institution, shows also the registry of
thousands of names since 1876.

Our contract with Supt. Comstock expired on the 1st of Sep-
tember last. With his facility and skill in managing the interest
entrusted to his care, no manner of fault can be found. The tak-
ing and the impregnating of the trout, and the hatching, was a
complete success. It was our first experiment with the water of
these beautiful springs. There is nothing about them that we would
change. The Superintendent, after a thorough test, is satisfied
with them as to quantity, character and temperature. Under his

supervision three additional pounds were consumed. There are nine now, large and small, to be needed for some time to come.

In one of these ponds we have about 2,300 yearlings put into our ponds of breeders, 2,000 of which the spawn was taken for the hatch of trout which Mr. Comstock handled, and named in his report. About 300 of the trout pond in which they were kept, in August, were caught. With this loss, and the usual handling of fish in taking eggs, our crop was reduced to about 800. This necessitated the purchase of new breeders. Mr. Palmer corresponded with fish breeders throughout the state with a view to a purchase outside of the state, resulting in the purchase of the best interests of the state, we purchased from the extensive ponds of Mr. Palmer, their offer being the lowest. This purchase was placed in the ponds at the middle of the part of October, in good condition. As appears in the report of the secretary of the governor's office.

This is the last purchase we shall make of breeders. From them, we expect to obtain impregnated eggs. With the 20,000 eggs of the fry of 1877 (eggs of last year) from which we can obtain millions of fry.

This purchase of breeders, from Mr. Palmer, has been the subject of criticism, from some of the commissioners. Had we purchased at the other rates, the cost would have been the same. Other establishment in the west could not supply the demand for trout. The enterprise was new, and we had to start, or omit the propagation of trout. While the cultivation of the whitefish is the leading purpose, and the lake trout is a secondary purpose, we are assured that the public want require the whitefish to have a place. They are easily raised, and are of good size, and are a universal favorite. We shall see the time when the speckled trout will be as common as the poor man in abundance.

ruined the past sum-
probably all that will

00 breeding trout. Last
000 trout (speckled), from
of 1877. These were the
and distributed the 179,000
ae trout were stolen from the
August. The rascals were never
usual mortality attending the
ar crop of breeders was reduced
the purchase of more breeders.
fish breeders in different parts of
hase outside of the commission; con-
he state, we concluded to obtain 1,500
e ponds of Messrs. Mann and Dous-
west. This additional stock of breed-
ds at the Madison Hatchery in the first
dition. A statement of the cost ap-
secretary and treasurer, on file in the

we shall be compelled to make of
expect to obtain not less than 2,000,000
he 20,000 speckled trout now in the
gs of last year), we shall have breeders
illions of eggs.

, from Messrs. Mann & Dousman, has
, from the fact that Mr. Dousman is
had we purchased the spawn at deal-
re been greatly increased — while no
est could have furnished that number
new and we were compelled to get a
of the leading fish for inland streams.

white fish must ever constitute our
e trout next, we are nevertheless as-
quires that the speckled trout shall
ily raised, are hardy, and grow to a
favorite at the table. We hope to
ed trout can be seen upon the table

The commissioners have deemed it proper to say this much in
respect to this purchase. Mr. Dousman had no desire to sell to the
commission — the state, not his partnership, received the benefit —
and the residue of the active commissioners assume the responsibil-
ity of the transaction. It was a necessity, and the state was not
the loser.

With the expiration of the employment of Mr. Comstock, the
commissioners entered into a contract with Mr. H. W. Welsher, to
take charge of the hatchery both at Milwaukee and Madison. As
a fish culturist he stands among the best in the United States. This
gentleman had charge of the Milwaukee hatchery last year. He is
a working man in the line of his profession. He has long been
known to the practical members of the commission as in all respects
qualified to take charge of the fish interests of any state. In his
employment under the United States fish commission, and in his
trips across the ocean in charge of international fish transactions
he has given satisfaction. He has also aided Seth Green in his
work, and in various ways, has acquired a thorough practical knowl-
edge of fish culture. For his own services, and that of his son, a
young man, the agreed salary is \$2,000 per annum. This salary
will cover all expenses incident to the superintending of both hatch-
eries, and in distributing fry throughout the state, except the addi-
tional labor and expenses incurred in hatching and distributing fry,
which extends to only a small portion of the current year. We are
satisfied that, upon examination, the legislature will approve our
action.

We submit herewith, through Mr. Dousman, the report of Mr.
Welsher respecting the distribution of fish from Milwaukee.

DISTRIBUTION OF FRY FROM MILWAUKEE HATCHERY.

WM. WELCH, Pres't :

Dear Sir: Herewith I hand you superintendent Welsher's de-
tailed report of the operations at the Milwaukee hatchery during
the past season.

There were turned out from them 1,736,000 lake trout fry, and

6,295,000 young white fish, which were distributed in the streams, according to the superintendent's report.

This output of 8,000,000 young fish equaled by any establishment in the first year. Our success is due to two things: In the first place, the location of the hatchery itself, which neither in location nor appearance is remarkable, and in the second place to the ability, care and industry of the superintendent Welscher, and his assistants in discharging their duties.

The current expenses of the establishment are divided as follows: Paid superintendent, \$374.15; paid board of Welscher's men, \$374.15; paid for dry items, \$335.05; paid getting white fish, \$227.15; and for distributing young fish, \$227.15.

This makes the cost of the young fish about \$227.15 per thousand, distributed in the streams. In another year, this cost can be reduced. Starting now enterprises, we have had no transportation. One item, however, I have neglected is the cost of distribution, to which I will now give attention. We put out 8,000,000 fish, \$227.15, and I think I can safely say that they have traveled so far and spread as widely for this we are indebted to the transportation companies: the Northern Union R. R. Co., the C., M. & St. P. R. R. Co., the Wisconsin Central and American Express Companies, and the Goodrich Transportation Company. They were free and passed and kept the me-

The thanks of the board are due to the transportation companies for the courtesies which they have shown to these the only gentlemen to whom they have shown us some favor; and to the engine works, Messrs. McMillan and Son, for their almost hourly kindnesses; to the house which seems to take as much interest in us as his own, and our winter's expense, which says, "two families

which were distributed as per Mr. Welsh-

young fish I think has never been in the first year of its operation, and eggs: In the first place, to the hatchery on nor appointments can be excelled; the ability, care and attention shown by his assistants, Messrs. Scott and Lyons,

the establishment have been \$3,796.22, Superintendent Welsher \$1,535; paid 4.15; paid labor, \$1,037.61; paid sun-drying whitefish spawn, \$287.26; paid dis-

the young fish less than fifty cents per streams and lakes of the state, and in reduced somewhat, for like all people have had to pay something for information have no hopes of reducing, and that which I would especially call your attention to, 10 fish, at a total cost for distributing, of only say that never were as many fish carried for the same amount of money, and for transportation companies. The West-M. & St. P. R. R. Co., the C. & N. W. Central R. R. Co., and the United States Companies, all carried our fish and cans free, the Transportation Company both carried the fish men while on their trips.

are due to the managers of these companies which they so freely extended. Nor are we whom we are under obligations, but the board of public works, is forever doing engineers in charge at the pumping station at Hamilton, we are indebted for daily wages; in fact every man about the engine has interest in the hatchery as if it were his experience tends to disprove the old adage that men can't live at peace in one house."

And now a few suggestions for the coming year's work:

Superintendent Welsher has invented a new apparatus for hatching whitefish spawn, called by him a "percolator," and has tested it somewhat, not enough to satisfy him that it will answer to depend upon that alone, but enough to satisfy both him and myself that it will be a great assistance in handling a lot of whitefish eggs.

I would therefore recommend that he be permitted to put into the hatcheries the coming winter a number of percolators, not to exceed twenty, and at a cost not to exceed \$100.

With these and the Holton boxes now in use, I think he can handle from twelve to fifteen million whitefish spawn without much more expense than was incurred last winter, and I recommend that he be instructed to procure if possible that many. I would recommend that about 2,000,000 spawn of the lake trout be laid down, as this will give us as many fry as we can distribute.

H. F. DOUSMAN,
Commissioner in Charge.

SUPERINTENDENT WELSHER'S REPORT.

MILWAUKEE, May 31, 1877.

To the Honorable, the Fish Commissioners of the State of Wisconsin:

Having been entrusted with the superintending of the fish hatching establishment at this point, I beg leave to inform you as to the workings and progress of the same while under my care and direction.

Entering into your employ in August, 1876, my time was employed in the erection of a suitable house for the purpose of hatching, from August till about the 15th of October.

The first trip made for spawn was on the 17th day of October, and from that date up to the 15th of November, the ova of the lake trout were procured. The amount of trout eggs secured amounted to 2,000,000, of which number about 85 per cent. hatched, and were distributed in different lakes throughout the state.

A tabular statement of the
placed in each lake, in what co

No.	Kind.	
40,000	Trout...	Brown's, Rac
40,000	...do....	Delavan, Wal
40,000	...do....	Troy Lake, W
100,000	...do....	Oconomowoc,
40,000	...do....	Pine Lake, W
100,000	...do....	Pewaukee Lal
40,000	...do....	Lake Ripley,
100,000	...do....	In hatching h
40,000	...do....	Fox Lake, De
40,000	...do....	Swan and Silv
40,000	...do....	Bass Lake, St
40,000	...do....	Twin Lakes, S
40,000	...do....	Little Green l
100,000	...do....	Green Lake, C
40,000	...do....	Cedar Lake, V
40,000	...do....	Elkhart Lake
40,000	...do....	Long Lake, C
16,000	...do....	Lake Ella, M
40,000	...do....	Lake Pleasant
40,000	...do....	Landerdale, V
40,000	...do....	Clear Lake, I
40,000	...do....	North Lake,
40,000	...do....	Nagawicka l
40,000	...do....	Okauchee La
600,000	...do....	Lake Michig

Making a total of 1,736,000
occasions attended with succe
that our labors will in a few y

The ova of the white fish v
great lakes. Some were pro
Michigan, Pensaukee, Wisco
amount procured reach the
number 90 per cent. hatched
at which they were deposited

1,000,000 — *Racine*. Pla
harbor. Monday evening, A

1,000,000 — *Manitowoc*.
Rivers. Wednesday mornin

1,000,000 — *Green Bay*.
saukee about ten miles. F
dition.

order of distribution, the number condition, etc., is herewith annexed:

Lakes.	Remarks. ¹
ne county.....	May 10, 1877.
worth county.....	May 10, 1877.
alworth county.....	May 22, 1877.
Waukesha county.....	May 27, 1877.
aukesha county.....	May 26, 1877.
ce, Waukesha county.....	May 28, 1877.
Jefferson county.....	May 12, 1877.
ouse, Madison.....	May 18, 1877.
dge county.....	May 11, 1877.
er Lakes, Columbia county	May 18, 1877.
Croix county.....	May 14, 1877.
st. Croix county.....	May 14, 1877.
ake, Green Lake county..	May 22, 1877.
reen Lake county.....	May 21, 1877.
Washington county.....	May 7, 1877.
Sheboygan county.....	May 8, 1877.
hippewa county.....	May 23, 1877.
lwauke county.....	May 28, 1877.
Walworth county.....	May 23, 1877.
Walworth county.....	May 23, 1877.
ock county.....	May 24, 1877.
Vaukesha county.....	May 26, 1877.
ake, Waukesha county....	May 30, 1877.
ce, Waukesha county.....	May 30, 1877.
n, off Milwaukee.....	May 28, 29, and 30, 1877.

lake trout. The deposits were on all s, and I have every reason to believe ars receive a substantial return. are procured at various points on the ired at Detroit, Michigan, Saugatuck, sin, and Escanaba, Michigan. The arge number of 7,000,000, of which and the following shows the points

ed between Racine point and Racine ril 16, 1877. In good condition. lanted between Manitowoc and Two , April 11, 1877. In good condition. lanted in Green Bay, north of Pen- lay, April 27, 1877. In good con-

¹ good condition.

40,000 — *Elk Hart Lake*. Planted in Elkhart Lake, May 8, 1877.

3,255,000 — *White Fish Bay, Milwaukee*. Planted at various times from April 6, to April 27, 1877. In good condition.

Total number of whitefish planted: 6,295,000.

The foregoing is a substantial account of the work performed at this house; and in concluding this brief report, I wish to return my sincere thanks to your honorable body, each and all, for the courteous treatment which I received at your hands, and your kindness in assisting me in this past season's labor. Hoping my work may receive, at your hands, kind consideration, I remain,

Yours respectfully,

H. W. WELSHER,
Superintendent.

MILWAKEE, May 30, 1877.

To the Fish Commissioners, state of Wisconsin: HON. HARRISON LUDINGTON, Hon. WM. WELCH, Hon. ALFRED PALMER, Hon. P. R. HOY, Hon. H. F. DOUSMAN.

DISTRIBUTIONS OF FRY FROM MADISON HATCHERY

MADISON HATCHING HOUSE,
September 1, 1877.

Wm. Welch, Esq., Pres. of Fish Commission:

DEAR SIR: As superintendent of the above establishment during the past year, I beg leave to report the distribution of the fry of the speckled trout and California salmon, and the localities where planted. The spawn (about 200,000 eggs) of the trout, I took myself from the breeders now in the state ponds, and impregnated them. The hatch was upwards of 90 per cent. The California salmon were also hatched here; 85,000 eggs were placed in the boxes, and of these, upwards of 95 per cent. hatched out. Both varieties proved to be very strong and healthy. The salmon, I think, could not be beaten anywhere. Those now in the hatchery are of fine growth and very healthy. The same may be said of the 30,000

speckled trout kept for future
 varieties of fish in the ponds, w
 salmon, are doing well. The
 600 in number—are thriving
 These are designed for breed

I remain tr

STATEMENT OF DISTRI WISCONSIN STATE

BY M. D. COMSTOCK

CALIFOR

Spirit Lake, Sauk county.....
 Geneva Lake, Walworth county..
 Wautoma Lake, Waushara county
 Oconomowoc Lake, Waukesha co
 Mendota Lake, Dane county.....
 Brown's Lake, Racine county...
 Three Mile Lake, Chippewa coun
 Pond at Hatchery (Welch pond)..
 Richland Center, Richland county

Total.....

BROOK

Lancaster, Grant county.....
 Iowa, Mineral Point

Crawford, delivered at Boscobel..
 Dodgeville

Sauk and Richland, at Lone Rock
 Coon Valley, Vernon county.....
 Wautoma, Waukesha county.....
 Sparta, Monroe county

Nine Spring Creek... ..
 Sykes' Spring.....

Pond at Hatchery....

Head of Token Creek, Dane coun
 Hay Meadow Creek, Vernon cour

Total.....

use, and as breeders. The other va-
h the exception of the land-locked
hree year old California salmon—
s, and will soon want more room.
s.

ly yours,

M. D. COMSTOCK,
Snperintendent.

UTION OF FISH FROM THE ATCHERY, AT MADISON.

STATE SUPERINTENDENT.

NIA SALMON.

.....	10,000
.....	15,000
.....	6,000
nty.....	4,800
.....	15,800
.....	2,400
.....	3,500
.....	8,000
.....	2,000
.....	67,500

OK TROUT.

.....	15,000
.....	15,000
.....	25,000
.....	5,000
.....	15,000
.....	15,000
.....	10,000
.....	15,000
.....	10,000
.....	4,000
.....	80,000
.....	5,000
y.....	15,000
.....	179,000

In order to ascertain the size, depth, nature of the bottom, etc., of those small lakes situated within the southern half of the state, the commissioners issued the following circular:

DEAR SIR:—The State Fish Commissioners, in order that they may judge correctly what species of fish will thrive best in each individual lake lying in whole or in part in your county, have prepared the following blank which we wish filled out with great care, and forwarded to the chairman, Wm. Welch, at Madison.

If you cannot personally attend to this matter, please put this circular in the hands of some gentleman who will be kind enough to aid us in obtaining the desired information:

Name of lake, —; Size, —; Greatest depth, —; Nature of bottom: rocky, sandy, muddy? —; Size of stream flowing into it, —; Size of stream flowing out of it.

Which of the following species of fish inhabit this lake?

Cisco.	Perch.	Wall-Eyed Pike.
Black Bass.	Sun Fish.	Buffalo.
Sturgeon.	Suckers.	Dog-Fish.
White Bass.	Pickrel.	Cat-Fish.
Gar-Pike.		

Also, please name any other variety of fish which has been caught in this lake.

Draw a line through the species of fish *not* found in the lake named.

By devoting care and attention to these matters, you will confer a great favor on the Commissioners.

Truly Yours,

P. R. HOY,
Commissioner.

A copy was forwarded to the postmaster living nearest each lake, so far as this could be ascertained. Thirty-nine papers were filled out and returned, affording information to the commissioners which will enable them to judge understandingly what species of fish will be most suitable to stock those beautiful bodies of water.

We shall continue these investigations, and in time, it is hoped, will secure a mass of facts that will be of great value in determining the capabilities of our lakes, that we may be able to introduce the fish best suited to each location.

One of the commissioners has devoted considerable time to the study of the kind of food consumed by many of our fish; that of the most valuable varieties will be briefly noticed.

The food of the genus *Coregouns* consists of minute crustaceans *Gammarus filicernus* and *Hoyi*, and *Mysis relicta*, as well as ex-

ceedingly small mollusks belong to the genus *Limnaea*.

That section of whitefish jaws constitutes the genus *Ambloplites* "siscos" feed largely on crustaceans and, in consequence, will, at a certain season, feed freely. One species of this section inhabits depths of several of our small lakes.

The salmon trout, *Salmo gairdneri*, the smallest species of whitefish, is of little value. This section of the large trout should devote its attention to *Salmo gairdneri*, there would be no objection to propagating it for the purpose of the whitefish is also largely destroyed by the better kind.

We have but little fear that the lake will serve as food for the whitefish.

All species of bass feed upon aquatic insects. There is one species of bass, *Pomoxys hexacanthus*. We have found nothing but this variety. It is a beautiful fish in length and nearly half as much in weight as the veteran ichthyologist of Canada. It is hardly excelled by any of the others. It is equal to the best. It is delicious." We intend to propagate it and stock the shallow and grassy lakes. Before long, those living in the lakes will be supplied with hook and line, to supply a superior food.

As we have already suggested, the lake trout must be kept stock of the commission. Supt. W. H. H. question, and has watched the lake. He is of the opinion that that

ing to the genera *Pisidium* and

ing sharp noses and long under
osomus. Although these smaller
ans, they do not refuse small fish,
in seasons, take the baited hook
on of whitefish inhabits the cool
as.

ychus, subsists principally on the
own, the *Argyrosomus*, *Hoyi*, a
covery is of practical value, for if
he young of the whitefish, *core*-
ve doubts of the expediency of
f stocking Lake Michigan, where
ed, lest the less valuable fish de-

ie young whitefish placed in the
ut.

on crustaceans, and the larvæ of
ecies, however, which pursues the
1. This is the six-spined bass,
ve examined many, and in no in-
rawfish in the stomach. This fish
rays on the back, a peculiarity of
h, measuring from six to ten inches
a in breadth. Prof. J. S. Kirtland,
o, says of this fish: "For beauty,
ur Ohio species, and as a pan fish,
ned to become the fish for the mil-
the fish at the State Hatchery, and
es with this valuable bass, and be-
cinity of such lakes will be able,
their tables abundantly with this

l, the propagation of the whitefish
idily in view as the leading purpose
sher has devoted much care to the
abits of the whitefish with interest.
ariety of fish should be hatched in

lake water, and at as low a temperature of water as can be had.
As yet, no experiment in feeding the young whitefish in ponds has
succeeded. We are not without hope that Mr. Welsher may yet
be able to demonstrate that this fish can be reared in ponds. He
is experimenting on that subject without incurring extra expense
to the commission, and we shall soon know the result. Upon the
subject of hatching this fish and the trout, we publish his letter to
the Milwaukee *Sentinel*, of May last, deeming it of importance to
the general public, and particularly the fish breeders:

FISH HATCHING.

[From the Milwaukee *Sentinel*]

WISCONSIN FISH HATCHERY,
Milwaukee, May 19.

Having been a constant reader of your valuable paper for some
time past, and having seen numerous articles on the artificial propa-
gation of fish, I wish to explain to your many readers my experi-
ence in hatching the lake trout and whitefish of our lakes.

It has been the practice of a large portion of the states engaged
in fish culture, to locate their hatching establishment contiguous to
some springs, using the water from the same for the purpose of
hatching the different varieties of fresh water fish, and especially
those above mentioned. You are probably aware of the fact that
the temperature of spring water is usually from 44 to 48 degrees,
F. T. The ova of the lake trout or whitefish placed or kept in
water of that temperature would invariably hatch at from 80 to 100
days time, and, after the absorption of the sac, the young fish
would be planted in the waters of the lakes intended to be stocked.

Now, Mr. Editor, let us suppose that the spawn of the lake trout
or whitefish is taken in the early days of November, brought to the
hatching house and placed in a Holton trough or box, the water
turned on, at a temperature of 44 degrees, and that under such a
temperature until the fish are hatched, say 100 days, would we not
have them on our hands as early as February? And if hatched in
80 days, would we not have them to dispose of in the month of

January? Would it then be possible to keep them still frozen over with ice?

Now I am satisfied, from my experience, that in hatching them in 80, 90 and 100 degrees is a serious mistake. And against nature, which, I contend, we must insure a genuine success. The eggs are for a time wholly upon the air, as it does not exist to any extent, but little faith that young fish could be able to find sufficient

I will give you my experience spoken of in the natural way, this season now drawing to a close, to prove the truth of my remarks, and to show that hatching the different varieties of trout and whitefish.

I was employed by the fish commission as superintendent of the hatcheries located in the basement of the city here, the Pumping Works of the city with water from Lake Michigan, and the water for the fish hatching.

The first lake trout eggs of the season were taken on the 20th of October, and the 10th of November, eggs of the whitefish. They are now all hatched and growing. Now supposing those eggs taken on the 10th of November, and the whitefish placed in the incubator, the incubation period has been 182 days. There is no doubt that it requires at least the same period for the species deposited naturally in the water. Therefore, can be no doubt. Therefore, for the water of the same temperature, that it takes from 145 to 165 days for the whitefish, from 135 to 165 days for the lake trout.

cable to plant them in the lakes

experience in hatching lake fish, 100 days we make a very grave mistake. That it is not in conformity with nature, I follow as closely as possible to the habits of the wild fish, especially whitefish, feed them with the same food as is contained in the water, and, when the water while frozen over, I have not visited at such a season of the year as to sustain life.

namely, lakewater, during the
that you will be able to judge of
the virtue of using lake water in
of fish of our lakes, especially the

Commissioners of the state of Wisconsin. The rooms are the Engine House, or, as it is called, the City of Milwaukee, which supplies the city of Milwaukee, and which also furnishes the city of Milwaukee direct from the lake.

partment direct from the hatchery. The trout were placed in the house early every day from that date until each day placed in the house. The last of them hatching to-day were hatched to-day were the ones, that being the last day that trout we find that the period of incubation is also a large quantity of the ova of trout between the 1st and 25th of November, ranging from 140 to 165 days, and the length of time to hatch the same as the parent fish in the lakes, there we find by our experience in using that the fish live, breed and prosper 70 days to hatch the lake trout, and whitefish, or thereabouts.

Now what I claim is this, that lake waters are the only proper waters for hatching lake fish, and that a long period of incubation is most essential and necessary to produce good, healthy fish. Also by hatching the ova in water at a low temperature, and the consequent duration of incubation, it brings out the young fish in the spring months, when the bright, warm days of April and May have removed the icy coat from the lakes and streams, and the waters every day increase in warmth, and when the waters abound in sufficient food for the maintenance of the schools after they have absorbed the supply nature has provided them with. Under such conditions their survival is placed beyond a doubt. This is my experience of two successive seasons in hatching lake fish in lake water. The average temperature of the water from November 1, 1876, to May 1, 1877, was $35\frac{1}{2}$ degrees.

H. W. WELSHER,
Superintendent.

POPULAR NAMES OF THE DIFFERENT VARIETIES OF
FISH ARTIFICIALLY PROPAGATED, AND OTHER
FACTS ABOUT FISH.

California salmon, land-locked do., Atlantic do., Penobscot do.; whitefish, Mackinaw or lake trout, salmon trout, and speckled trout. Other varieties, bass, pickerel, perch, bull-heads, etc., can be transferred from one place to another. The German carp has also been introduced into eastern waters.

The eggs of the California salmon hatch in from 65 to 75 days; other varieties in about same time. Whitefish from 165 to 180 days; lake trout 175 to 190 days; speckled trout from 65 to 75 days—governed much by temperature of water. Low temperature gives stronger fry.

The female salmon yields 1,000 eggs to each pound weight. The whitefish yields about 10,000 eggs to each pound weight. To Dr. P. R. Hoy is awarded the credit of first discovering the food of the White Fish (see Prof. Baird's Report, 1872-3, page 44). The lake trout and the speckled trout about the same as the salmon. Fourteen thousand, nine hundred and forty-three eggs are recorded

as having been taken from one to four pounds, the calculation being weight.

We expect, in the course of a year in respect to the fish planted to the general work. We notice that the Des Moines rivers have returned fish, as yet, we have not undertaken the California Salmon placed in the ponds we also hope may return to the river. The success which has attended the assurances of complete success. The formation of private fish breeders of California salmon in ponds with expense incurred. There are many to be artificially raised, which will cost money and money expended.

The state has a thoroughly experienced Mr. N. K. Fairbank, of Chicago, where he has a summer residence upon that lake. This is the time pursued fish propagation upon Lake Geneva nearly 9,000,000 in 1875, 17,000 Oswego bass; in 1876, whitefish, 50,000 brook trout, 100,000 California salmon; in 1877, 1,000,000 wall-eyed pike, 100,000 trout. For this season he has planted California salmon, which are now living. he will receive large quantities in a few weeks.

The result of his labor and expense interest throughout the northwestern problem whether the California salmon can be successfully raised in ponds. We have now in our ponds, 600 of which are growing finely, and promise to yield each. As yet they have yielded but that spawn has ever been taken

e Mackinaw trout, weighing twenty-
being made by counting a fractional

a year or two, to have good reports
l this year, it being the first year of
at the shad planted in the Ohio and
ned in considerable numbers. This
rtaken to plant in our waters. The
e tributaries of the Mississippi river,
ie place of deposit in a year or two.
ed the work in other states gives us
u. We will say, however, for the in-
ers, that in our judgment the raising
will not repay them for the labor and
many other kinds of fish which can
l produce greater return for the time

fficient co-worker in fish culture in
o, who is interested in Geneva Lake,
nce. He has centralized his labors
bird season that Mr. Fairbank has
a large scale. He has deposited in
) young food fishes, as follows: In
1876, 250,000 salmon trout, 112,000
1,500,000 wall-eyed pike, 20,000 Cal-
000 salmon trout, 100,000 whitefish,
000 California salmon, 108,000 brook
successfully hatched 200,000 Califor-
ely minnows an inch in length, and
as of fish eggs within the next few

penditures is watched for with deep
est. His experiments will solve the
ia salmon, which is a sea-going fish,
our inland lakes. Of this fish, we
the hatch of three years ago. They
ise to attain several pounds weight
led no spawn, and we are not aware
en from those artificially raised.

We submit in this report our financial exhibit, commencing with
the organization of the present commission, and up to and including
September 30, 1877. It was not practicable to prepare an exhibit
of items at the date of our last report, owing to the unsettled con-
dition of outstanding claims incident to building, construction of
ponds, and setting in motion a new enterprise, etc. It will be seen
that our work, and particularly that of the secretary and treasurer,
is considerable.

At our annual session, held at Madison on the 3d and 4th of Octo-
ber last, the entire expenditures of the commission were carefully
revised, and all accounts and vouchers examined. These, we be-
lieve, are correct in every particular. Upon careful estimates, we
determined to ask an appropriation of \$8,000, to carry out work for
1878, and up to the close of the fiscal year of 1879.

The commissioners receive no compensation for their time, and
are only reimbursed for expenses actually incurred.

Dated Madison, November, 1877.

HARRISON LUDINGTON, *ex-officio*.
WILLIAM WELCH.
ALFRED PALMER.
P. R. HOY.
H. F. DOUSMAN.

TRIAL

Septen

2	Appropriation 1875.....
3	Appropriation 1876.....
3	Appropriation 1877.....
6	First National Bank, Milwa
8	General expense account...
12	Salmon account.....
13	Real estate account.....
18	Milwaukee hatchery.....
19	Milwaukee expense account
23	Madison expense account..
26	Breeding fish.....
28	P. R. Hoy, com.....
29	A. Palmer, com.....
30	Wm. Welch, com.....
31	H. F. Dousman, com.....
	Totals.....

NOTE. — The secretary and treas-
 erial statement showing the items
 print it with this report. But the
 chapter 32, laws of 1874, very pr-
 vided by law, is on file with that
 are on file in the governor's office

BALANCE.

for 30, 1877.

.....	.....	\$781 85
.....	.....	10,000 00
.....	.....	5,000 00
ee.	\$505 80	.....
.....	247 90	.....
.....	272 32	.....
.....	5,564 48	.....
.....	1,171 83	.....
.....	8,796 22	.....
.....	2,664 76	.....
.....	811 60	.....
.....	88 23	.....
.....	194 30	.....
.....	234 49	.....
.....	179 92	.....
.....	\$15,731 35	\$15,731 35

arrer, Mr. Dousman, has prepared a financial expenditures, and it was our purpose to secretary of state, under the provisions of verly expunged it. That exhibit, as pro- ficer, and subject to inspection. Vouchers

NAMES AND ADDRESS OF COMMISSIONER OF FISHERIES.

UNITED STATES.

Prof. Spencer F. Baird (Smithsonian Institute)..... Washington, D. C.

DOMINION OF CANADA.

W. F. Whitcher..... Ottawa.
W. H. Venning..... St. John.

ARKANSAS.

N. H. Fish..... Pine Bluffs.
J. R. Steelman..... Little Rock.
N. B. Pearce..... Fayetteville.

CALIFORNIA.

B. B. Redding..... Sacramento.
S. R. Throckmorton..... San Francisco.
J. D. Farwell..... San Francisco.

CONNECTICUT.

Wm. M. Hudson..... Hartford.
Robt. G. Pike..... Middletown.
James A. Bill..... Lyme.

GEORGIA.

Thos. P. Janes (Commissioner of Agriculture and Fisheries)..... Atlanta.

ILLINOIS.

W. A. Pratt..... Elgin.

IOWA.

B. F. Shaw (Commissioner and Superintendent)..... Anamosa.

KENTUCKY.

Pack Thomas, President..... Louisville.
P. H. Darbey..... Caldwell county.
Polk Laffom..... Hopkins county.
S. W. Coombs..... Warren county.
C. J. Walton..... Hart county.
Jas. B. Casey..... Kenton county.
John A. Steele..... Woodford county.

J. H. Bruce
T. T. Garrard.....
W. C. Allen.....

E. M. Stilwell
Henry O. Stanley

MA

T. B. Ferguson
P. W. Downes.....

MASS

Theodore Layman
E. A. Brackitt.....
Asa French.....

N

Eli R. Miller.....
Andrew J. Kellogg
Geo. H. Jerome, Superintend

M

R. O. Sweeny
Wm. Golcher
Robert Ormsby

NEV

Samuel Webber.....
Allenia H. Powers
Luther H. Hayes.....

N

B. P. Howell
J. R. Shotwell.....
G. A. Anderson

I

Horatio Seymour
Edward M. Smith.....
Robert B. Roosevelt.....

John C. Fisher, President..
Robert Cummings, Treasur
John H. Klippart, Secretary
Emory D. Potter, Superinte

..... Garran county.
 Clay county.
 Bath county.

INE.

..... Bangor.
 Dixfield.

AND.

..... Baltimore.
 Denton.

USETTS.

..... Brooklyn.
 Winchester.
 South Braintree.

IGAN.

..... Richland.
 Detroit.
 Niles.

ESOTA.

..... St. Paul.
 St. Paul.
 ———

AMPSHIRE.

..... Manchester.
 Grantham.
 Milton.

JERSEY.

..... Woodbury.
 Rahway.
 Trenton.

W YORK.

..... Utica.
 Rochester.
 New York City.

OHIO.

..... Coshooton.
 Toledo.
 Columbus.
 Toledo.

PENNSYLVANIA.

B. L. Hewitt Hollidaysburg.
 Howard J. Reeder Easton.
 James Duffy Marietta.

RHODE ISLAND.

Newton Dexter Providence.
 Alfred A. Reed, Jr. Providence.
 John H. Barden Scituate.

UTAH TERRITORY.

A. P. Rockwood Salt Lake City.

VERMONT.

W. H. Lord Montpelier.
 M. Goldsmith Rutland.

VIRGINIA.

A. Mosely Richmond.
 W. B. Robertson Lynchburg.
 W. G. Ellzey Blacksburg.

WISCONSIN.

Gov. Harrison Ludington, ex officio.... Milwaukee.
 Wm. Welch Madison.
 A. Palmer Boscobel.
 P. R. Hoy Racine.
 H. F. Donsman Waterville.

1

2

3

4

SEVENTH
ANNUAL REPORT
OF THE
STATE BOARD
OF
CHARITIES AND REFORM
OF THE
STATE OF WISCONSIN.

Presented to the Governor, December, 1877.

MADISON, WIS.:
DAVID ATWOOD, PRINTER AND STEREOTYPER.
1878.

STATE BOARD OF C

ANDREW E. ELMORE, - F

HEZEKIAH C. TILTON, - J

HIRAM H. GILES, - - - M

CHARLES H. HASKINS, - N

WILLIAM W. REED. - - J

● OFFICERS

ANRD

WILI

VI

THER

CHARITIES AND REFORM.

- HOWARD. - Term expires April 1, 1878.
 NASHVILLE. - Term expires April 1, 1879.
 MADISON. - Term expires April 1, 1880.
 MILWAUKEE. - Term expires April 1, 1881.
 JEFFERSON. - Term expires April 1, 1882

MEMBERS OF THE BOARD.

JOHN E. ELMORE,
 PRESIDENT.

JAM W. REED,
 VICE-PRESIDENT.

JOHN W. HAIGHT,
 SECRETARY.

CONTENTS.

	Page.
I. THE BOARD AND ITS WORK —	
Meetings of the board.....	5
County inspections	7
Legislation recommended	12
The chronic insane.....	13
Industrial school for girls	20
Classification of convicts.....	22
Provision for released prisoners.....	23
Laws relating to minor offenses.....	23
Provision for imbecile children.....	31
International prison congress.....	44
II. THE STATE INSTITUTIONS —	
General remarks and statistics.....	46
Appropriations asked for.....	51
Institution for the Blind	56
Institution for Deaf and Dumb.....	62
Hospitals for the Insane.....	63
State Hospital for the Insane	77
Northern Hospital for the Insane.....	80
State Industrial School for Boys.....	84
State Prison.....	90
Soldiers' Orphans' Home.....	100
III. THE COUNTY JAILS, ETC. —	
General remarks and statistics.....	100
Record of visitations arranged alphabetically.....	108
IV. THE POOR-HOUSES —	
General remarks and statistics.....	141
Record of visitations arranged alphabetically.....	144
V. PRIVATE BENEVOLENT INSTITUTIONS	170
VI. SUPPLEMENTARY —	
By-laws of the board.....	181
Expenses of the board.....	184
Note correcting mistake in first part of report.....	185
Report on Conference of Charities.....	185
Milwaukee visiting committee.....	199
Omissions.....	200
Alphabetical index.....	201

SEVE

TO HIS EXCELLENCY, I

Gc

The undersigned me
Reform, have the hono
annual report, as requir

Respectfu

T. W. HAIGHT, *Secretar*

MADISON, *December, 1*

NOTE. The illness of Mr.
report.

ERRATUM. In the 21st lin
of the line, insert the words,

ANNUAL REPORT.

MASON LUDINGTON,

for of the State of Wisconsin.

of the State Board of Charities and
submit to you, herewith, their seventh
year law.

A. E. ELMORE,
H. H. GILES,
C. H. HASKINS,
W. W. REED.

has prevented his reading or signing this

on 7, after the word "all" at the beginning
of the

REPORT.

I. THE BOARD AND ITS WORK.

Since the date of the last annual report of the State Board of Charities and Reform (Dec. 13, 1876), meetings of the board have been held as follows:

1. At the Newhall House, Milwaukee, December 18, 1876.
2. At the office of the board in Madison, January 10, 1877.
3. At the office of the board, January 17, 1877.
4. At the office of the board, February 1, 1877.
5. At the Newhall House, Milwaukee, March 13, 1877.
6. The regular annual meeting of the board, at its office in Madison, April 10, 1877, being the second Tuesday of April.
7. At the Simpson House, Waupun, April 16, 1877, and continuing at the State Prison and at the Northern Hospital for the Insane, April 17.
8. At the Institute for the Deaf and Dumb, at Delavan, June 12, 1877.
9. Regular quarterly meeting of the board at its office in Madison, July 17, 1877, being the third Tuesday of July.
10. At the office of the Board, August 29 and 30, 1877.
11. Regular quarterly meeting of the board at its office, October 16, 1877, being the third Tuesday of October.
12. At the State Prison, Waupun, November 12 and 13, 1877.
13. At the Institution for the Blind at Janesville, November 13, 1877.
14. At the Institute for the Deaf and Dumb, at Delavan, November 14, 1877.
15. At the office of the board in Madison, November 15, 1877.
16. At the state Hospital for the Insane at Mendota, November 16, 1877.

17. At the Newhall House,
18. At the Northern Hospital,
September 27, 1877.

19. At the Industrial School,
at the Newhall house, Milwaukee.

20. At the office of board in

At each of the meetings en-
least a majority of the board
tions of members have taken
cluded here.

The work of the board per-
in the preceding condensed re-
lated briefly as follows:

At the meetings from Decem-
ber inclusive, were considered the
the state institutions, and the
for the year 1876.

At the meeting of March 1
plans were taken into consid-
eration by the legislature to be
children, and for conducting
operations during the current year
institutions of the state con-
were also discussed at length.

At the regular annual mee-
ting of the same subjects were
in detail. Andrew E. Elmo-
son, president of the board for the en-
suing year, was elected vice-presi-
dent.

The meetings of April 16
discussed the affairs of the institution.

Amendments were made
to the matter of provision for the
discussed at the quarterly mee-
ting.

At the meeting of August
members to attend the confer-
ence, and various matters were
discussed.

At the quarterly meeting

ukee, November 19, 1877.
he Insane at Winnebago, Nov-

boys at Waukesha, continuing
December 5, 1877.

on, December 13, 1877.

d above, the secretary, and at
sen present. Other consulta-
various times, but are not in-

at the times and places named
f meetings, may be recapitu-

}, 1876, to February 11, 1877,
ss and estimates of certain of
ss of the report of the board

members were present, and
or prosecuting the inquiry di-
nto the condition of imbecile
ns to state and local institu-
condition of the jails and other
n the purview of the board,

he 10th of April, the consid-
d, and a plan of work adopted
t Howard, was elected presi-
and W. W. Reed, M. D., of

nd June 12, related chiefly to
ted.

-laws of the board, and the
sane was considered and dis-
y-

), authorization was made for
harities to be held at Sarato-
province of the board were

matters for recommendation

by the board were considered, the time of visitation of state insti-
tutions was decided on, and discussions were held in relation to the
proposed asylum for chronic insane, and to the project of an insti-
tution for feeble minded children.

The ensuing meetings of the board to that of Dec. 5, inclusive,
were devoted principally to the consideration of the various state
institutions under the supervision of the board. The trustees of
each of the institutions, (with one exception) were present at the
respective visits of the State Board of Charities and Reform, and,
with that exception, agreed to the deductions and modifications ad-
vised by the board in relation to the expenditures of the ensuing
year, and incorporated such changes in their published reports.

The meeting of Dec. 13 was for the purpose of taking under
consideration the written report of the board, and making such
changes as might seem desirable therein.

Besides the regular proceedings of the board, at its meetings, as
above noted, the progress of inspection of county jails and poor-
houses and other local institutions has been brought before the
board, from time to time, and such instructions given in regard to
the farther prosecution of this important duty as appeared necessary.
All of the county jails and poor-houses have been visited within the
current year, as well as most of the city, village and town institu-
tions of similar character. Nearly all of these places have been
inspected by the secretary, as executive officer of the board, either
alone or in company with one of the members. In some cases, also,
members have made supplementary visits to local institutions which
had already been visited by the secretary, and in a few instances
the visits have been made solely by members to whom the duty
was delegated. In two cases—those of the jails at Jenny and Ke-
waunee—the visits were made by gentlemen not members of the
board, and who were specially delegated to obtain the necessary in-
formation. In both of these instances the buildings are compara-
tively new and have not been used for the confinement of any pris-
oner for more than twenty-four hours at a time.

The value of systematic inspection of local charitable and cor-
rectional houses would be very great if nothing more were consid-
ered than the moral influence thereby exerted over the officers in
immediate control. Before the establishment of the State Board
of Charities and Reform, the management of each county jail and

poor-house was substantially a responsibility to the outside world. Usually situated in the least accessible counties, and were visited at county boards of supervisors, formations were annually made; so the county boards went away finding any more of the inner world have done if they had made in the same state of affairs exist natural consequence, both jails coming public nuisances and acute mania were placed in the poor-houses close box-like rooms of such cases. In at least one box without light or ventilation machine of torture recent cases beyond a hope of recovery. And that they do not is due to at any time would be reported by the general supervising board.

The visits of this board are not to any one connected in any way inspected, and, consequently, the day shape. The only disadvantage the fact that the officers of the when the visits are made, and as to needed changes might be far more than counterbalanced by the possibility of a visit from the board usually militates against any tendency to slovenly methods of management instances, occur.

The improvement of county poorhouses, for the obvious reason seldom remains more than to the hands. This fact renders it no tration should commence at method of treating prisoners,

se corporation without any visible d. The poor-houses were general localities of their respective fixed season of the year by the whom ample and deliberate preparation that it is safe to say that, as a rule, in the county farms without knowledge of the places than they would incur at the court-houses. About in relation to the jails, and, as a and poor-houses were gradually being disgraced to the state. Victims of dreariest jail cells, and in some were fitted up for the reception of the latter class of institutions, a was built in the cellar, and in this of insanity were speedily placed present, such abuses do not exist, e knowledge that their appearance to the authorities and to the public of the state.

ways made without previous notice y with the jails or poorhouses to be premises are found in their every-age of this method of visitation is institutions are sometimes absent when a conference with such officers desirable; but this disadvantage is by the influence of the known liability at any time, which liability continuity towards a relapse into brutal or it, which might otherwise, in some

ails has not been as marked as that of son that the management of any jail years consecutively in the same necessary that every new jail administration beginning to learn the proper object which is not often fully at-

tained before the management retires to make way for another set of learners. Notwithstanding this drawback, the jails of the state are far better in the aggregate than they were seven years ago. A number of new jails have been built on plans combining comparative security and healthfulness, and it is not likely that any of the old structures will be replaced by such utter abominations as were formerly thought sufficient for purposes of incarceration. The internal management, also, of these local prisons, shows a gradual modification for the better, though the reason before stated prevents this from being so rapid or so thorough as could be desired.

Without a general supervision, the tendency of both jails and poor houses is retrogressive. This is shown by the experience of older states, one of which (Maryland) has ordered an investigation into the condition of its charitable and penal institutions within the past year. From the report of Dr. Chancellor, of Baltimore, who had charge of the investigation, we make the following extracts, premising that the copy here used is taken from the newspapers, but is probably correct.

In introducing his report, Dr. Chancellor says:

"It is painful to report the shocking condition in which many of the public institutions were found, and it is difficult to conceive that anything worse ever existed in a civilized country. There are now, he says, within the almshouses and jails of our state over five hundred insane and idiotic people, for whom there exists no proper provision, and who are utterly cast down and neglected, half fed and ghastly in their wretchedness. The report first takes up the condition and management of state institutions in the city and elsewhere. With one or two exceptions (the House of Refuge and the Bay View Asylum, which are overcrowded) the state institutions are represented as well conducted and disciplined, and the Asylum for the Deaf and Dumb, located at Frederick, is pronounced a 'monument of public beneficence.' In the almshouses in some of the counties an entirely different state of affairs exist, and Dr. Chancellor's report represents them to be disgusting dens of filth and prostitution, too shocking, sickening and disgusting to contemplate.

"In Allegheny county almshouse, the sane and insane were indiscriminately associated without proper means of separating the sexes. Most of the insane were harmless. One colored girl, an epileptic

of feeble mind, had three children born in the almshouse. The young undoubtedly the child of a white woman. The almshouse is an abode of comfort where the poor are comfortably quartered on the second floor. One inmate has three children in the house, all innocents had fortunately been born not in any room of this almshouse such as were found were disgusting if possible, were even worse. Every room was in a dirty condition, no pillows, and in several rooms the county is as filthy and objectionable as the association of all classes in the almshouse the male department, room, bath-rooms, and even the rooms.

"The Caroline county almshouse is a nursery of pollution, not the moral and physical condition of the inmates. One woman was the mother of a family said to have been begotten in the colored department should be an injustice to the pig sty. There were five men, five women, two children, and other living things too numerous to mention. One was a centenarian, two were old and two were young girls, aged. An old man was sick, with scarce strength to rest his aching bones. Another man took of the coarse and badly cooked food too weak to defend his scanty stomach that quickly gulped it down. A woman is rarely seen, and a mother is never imagined.

"In Cecil county almshouses for males and females are separated.

n with her, two of whom had been ngest, an infant of six months, was e man. In Anne Arundel county, sery. The keeper and his family e first floor of the main building, urther in unrestricted concubinage woman, aged about 30, had borne gotten by the inmates. These in- to an orphan asylum. There was e a bed or pillow fit for use, and ingly filthy. The negro quarters, n those occupied by the whites. on, the beds filthy, without sheets o beds. The common jail of this le as the almshouse, a promiscu- isting. In the Baltimore county as so overcrowded that the dining- ater closets were used for lodging

use is a mockery of charity and htest attempt being paid to the he paupers and insane inmates, o children, and another of six, all orn within the almshouse. If the pared to a filthy pig sty, it would one small room were found four y quantity of cats and dogs, and to mention. Of the five women others with infants in their arms, spectively 14 and 16 years. One he semblance of a bed on which ; though sitting upright to par- ced dinner just served him, was d against the incursion of a dog h an aggregation of human mis- reputable place can scarcely be

both buildings, the departments d only by a narrow passage, and

the evil result of the free communication between the sexes is man- ifested in the number of illegitimate children born in the house.

"There are two instances in this almshouse in which the mother and children were born in bastardy under its roof. One, an idiotic white woman, 40 years of age, herself born in the almshouse, has given birth to six children in this institution. Another, a white woman, aged 35 years, insane, whose mother resides in the house, has borne two children here; and still another insane white woman is the mother of a half-negro child, begotten and born in the insti- tution. In Washington county the almshouse, situated in the sub- urbs of Hagerstown, should be presented as a common nuisance. The details of its condition are, if possible, more revolting than of Baltimore county and Cecil. But there are counties in which this shocking and disgusting state of affairs does not exist, and in which order and decency and civilization prevail. In Carroll county the almshouse was found to be in a highly commendable condition of cleanliness and comfort. The usual almshouse odor was altogether absent. The whole management presents the appearance of care for the inmates. In Charles county the house was in admirable order, with good management and discipline prevailing throughout. The ventilation is excellent, and I have pleasure in recording that the Charles county almshouse stands in point of neatness and com- fort of its inmates second to none in the state. The total number of indigent insane in the state in county almshouses, jails and hos- pitals is given as follows: Whites, males, 319; females, 330; col- ored, males, 50; females, 54; total insane, 747."

It will be seen by the above resume that pauperism and insanity are fostered and propagated in Maryland, instead of being checked by governmental action. In some of the eastern states, where the supervisory plan has been adopted after a long trial of the let-alone policy, the evils resulting from the latter have been found so deeply rooted that many years will elapse before they can be thoroughly weeded out.

In our own state, it is fortunate that a general inspecting board was established before any false methods became firmly imbedded into the county systems of treating paupers and prisoners. In those of its counties where poor-houses are to be found at all, Wis- consin may now safely invite a comparison with the poor-houses in the same number of counties in any other state. Though perfec-

tion is not attained in any of the flagrant abuses are tolerated in the country against the morality of the institution. Pauperism is propagated in this manner in poor-houses by the paupers, and no pains are taken to prevent common female charges. The only institution mentioned in our last report for want of attention since made very noticeable changes. We are confident that the poor do not understand the necessities of life in a proper vision.

The condition of the insane in the country is still, however, far from what it could be. Things we cannot hope for greatly so long as the chronic insane are not properly treated. It requires experience, humanity, and prudence to treat cases of mental aberration. As the overseers of poor-farms are seldom to these qualifications, they cannot be trusted in many cases. The most important recommendation to this board, is pointed out in an appendix to the amelioration of the condition of the insane at some length.

LEGISLATION RELATIVE TO THE INSANE

The law assigns to the State, among its other duties, that of assisting the legislature any important facts relative to the best treatment of criminals and recommending such change and adoption of state charitable and corrections as may be necessary for greater economy and efficiency. In the discharge of this duty, the board has been careful to take into consideration any recommendations of the legislature to be of pressing necessity, or clearly in the public interest. The primary and principal object of the law is without doubt the protection of the insane, which would, if left to their own wills, im-

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RECOMMENDED.

Board of Charities and Reform,
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members. The laws that have this important purpose in view should therefore be enacted only after the most thorough examination and consideration; but as soon as it becomes evident that they are needed, and would be useful to the public, they should be incorporated into the body of statutes without farther delay.

In accordance with these views, we recommend (1) provision for the care of the chronic insane; (2) the establishment of an industrial school for delinquent girls; (3) a classification of the convicts at the State Prison by which the younger and less hardened offenders may be separated from the others, and receive instruction appropriate to their condition; (4) provision for the care of released prisoners, and such a change in the law as will permit the payment to released prisoners of their necessary expenses in reaching their homes; (5) more stringent measures for repressing the minor crimes, through the practice of which vagabondism flourishes, and tramps acquire the ability to pursue their avocation, and (6) the establishment of an institution for the instruction of imbecile children.

1. THE CHRONIC INSANE.

That the hundreds of chronic insane now scattered over our state in jails, poor-houses and private families, should have a more systematic provision made for them is a fact from which hardly any one now dissents. There are, in round numbers, seven hundred chronic cases in the two hospitals for the insane at present, which are no better entitled to the elaborate attention that they receive than are the three hundred similar cases which are otherwise disposed of in the several counties. The welfare of the public demands that the insane should be placed where they cannot readily harm the sane, and humanity demands that they should be treated with considerate care and patience. But the difference in opinion as to the best method of attaining these objects has hitherto proved the great obstacle to their attainment at all. Some have advocated a home for the chronic insane separated entirely from the present hospitals; others have been in favor of such an asylum on the grounds of one of those institutions, and still others have preferred a simple enlargement of one or both of them. The result has been that no one of the various schemes proposed has been able to overcome the opposition of those who endorsed the others, and consequently many

of the poor insane are still compelled to wait for their woe comfort while waiting for their woe agreement. It is hardly to be supposed in providing for this unfortunate class most probable that some plan will be approved by the legislature and coming year. It is therefore especially suggestions here as have a bearing on the features of the matter.

Of the whole number of insane at present, are hopeful cases and have a life remaining ninety per cent. a very small more than two in a hundred, will even if properly cared for, notwithstanding the facts. It is quite within the limits of more than one-eighth of the whole number will ever become sane. That is to say are now deprived of their reason one permanently recover and one thousand a majority of each class of cases a skillful result with considerable accuracy, but prognosis is more doubtful. Including all much doubt, however, the number of those considered profitable to treat with medical their cure is not more than three hundred the remaining nine hundred could be given institutions for chronics.

The difference between the cost of care for the acute cases, is very remarkable. there are three institutions for the care of chronics, and the other two, hospitals for chronic cases together. The first is the New York, which supported more than during the year 1876, at an average week while of the other two, it cost for the sane and \$8.33 at Middletown. From these facts of New York (the only state where the cost on a large scale), it may not unreasonably

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 m these facts in relation to the state
 here the experiment has been tried
 reasonably be assumed that the cost

of asylum treatment is not more than half that of hospital treat-
 ment, and in Rhode Island where the separation of these classes is
 also made, though with smaller numbers, the cost is less than half
 as great, being in the case of the chronics \$2.07, and in that of the
 others \$4.21. It will be admitted by all, however, that the cost of
 supporting any institution in Wisconsin need not exceed that of a
 similar institution in New York, and for the purpose of comparison
 we will therefore take the figures of the Willard asylum as repre-
 senting the probable cost of like care under like circumstances in
 Wisconsin.

Placing by the side of this \$2.83 per capita of the Willard asylum
 the \$4.50, which is the lowest estimate made by a Wisconsin hos-
 pital for the insane of late years, it will be seen that there is a differ-
 ence of \$1.67 in favor of the former, which would make, on the care
 of 900 patients for a year, the respectable saving of \$78,370.71.
 On the score of economy, therefore, there can be little doubt that
 if our chronic insane could be treated together as such, instead of
 being treated with recent cases on the same plan as the latter, there
 would be a decided financial profit to the state.

Our hospitals being already constructed, and the smaller of the
 two having more than capacity enough for the accommodation of all
 the acute cases in the state, the question naturally arises whether it
 would not be good policy to use one of our present buildings exclu-
 sively for chronics, and treat all the acute cases in the other. The
 only point remaining to be considered before arriving at a decision
 is the welfare of the patients. If the chronic class would be as well
 cared for in the contemplated asylum as in the hospital, there cer-
 tainly could be no reason why the proposed change should not be
 made. But the Association of Superintendents of American Insane
 Hospitals, a body which has exercised vast influence over the con-
 struction as well as the management of hospitals and asylums has
 declared against the advisability of separating the two classes of
 the insane on the expressed ground, as we understand, that if the
 chronic cases are treated separately the care will necessarily deter-
 iorate, because the medical officer will not have the stimulus to sus-
 tain his efforts which more frequent recoveries will be likely to im-
 part. As the gentlemen who compose this association are nearly
 all in charge of just such institutions as they desire to see perpetu-
 ated, we will quote the opinion upon the same subject of Dr. J. B.

Chapin, who is himself a member familiar with the separate method of an asylum from its small beginning of mammoth proportions. In the report for the year, he says:

"If public sentiment demands that dependent insane be placed under the care of the State, and in institutions expressly designed for that purpose, no objection need be entertained that the standard of expense will be lowered. In the general practice, however, much the larger portion of the time is spent in the treatment of chronic and incurable diseases, and it is a reproach, if the assertion should be made, that incurable cases to induce him to receive them such care as he could. In the treatment that furnished by this asylum (the same as in his own case, acting under the same laws of the State, and generously upheld by the board could reasonably furnish, the failure in the administration. There has been that the tax-paying element of incurable insane in an asylum who is greater than in a county poor-house. In an asylum be said to be experimenting, the requests for admission are in excess of our accommodation. Various county and municipal institutions have shown them to be defective in management. I believe there will be material improvement in the judgment an asylum for the chronic insane, or governmental supervision, or the same laws to secure efficiency and a successful working of the existing system. It also be divested of all the influence of an alms-house. An adherence to a successful administration of an asylum, the reception of recent or chronic cases will as surely result in lowering the standard of discussions and opinions have been

number of the association, and is also method, having brought the Willard of nine years ago up to its present report of his asylum for the present

shows that the care of the chronic and under the governmental supervision, designed for their use, no apprehension of the standard of care for this class of practice of the medical profession, time of the physician is devoted to and he would probably resent the if he made, that he needed a few receive such patients and render this country no experience except the Willard) is attainable. In our laws that govern the other asylums aided by all the moral support your here has been no apprehension of the real fear which has existed has would decline to maintain their are the cost of support would be less. In this respect only can this , but the results are very gratifying if patients having always been in with reference to the condition of official reports have repeatedly in every respects and we do not believe improvement in their future. In our insane should be under state organized and managed under the are found best adapted to the asylums and hospitals, and should be as and associations which attach to these principles will secure the asylum, whether designed for the same, and a departure from them the standard of care. The discipline influenced by fears and ap-

prehensions, and we might say without effect, except to consolidate professional opinion, and we might add, to retard the general movement. In this view of the state of the question it has been more profitable to establish some practicable and tangible results. It has been more important to impress the public with the humanity and duty of providing better accommodation than the almshouse can possibly afford, than to prolong a discussion which of itself would bring no practical relief, though it might serve a medical idea."

Dr. Nichols, the superintendent of the National Asylum at Washington, a former president of the association, has also abandoned the theory that associated treatment of recent and chronic cases is necessary, and has begun the separation in the institution under his charge.

About two years ago "The Lancet," a medical journal of London, appointed a commissioner to examine into the condition of the various insane asylums in England, and report upon them. Among his conclusions, we give the following upon the same point, as quoted with approval by Dr. H. B. Wilbur, superintendent of the N. Y. Asylum for Idiots, in a paper read before the conference of charities at Saratoga last September :

"Viewed from an economic standpoint, the problem resolves itself into an inquiry how best to secure four objects essential to the result, and interdependent,—

"*First.* The existence of a highly curative establishment, replete with every convenience, furnished with all necessary or desirable appliances, and so organized as to afford the greatest facility for the prompt, rapid, and effectual treatment of insanity in its various forms and under divers conflicting conditions.

"*Second.* That every case of mental disease falling under the control of the public authority, and chargeable to the rates, shall be placed at the earliest moment—without being delayed or intercepted by any other machinery—in the institution already described.

"*Third.* That no case proving incurable, or passing into a condition which renders active treatment hopeless or unnecessary, shall be allowed to occupy space or waste power in the curative establishment.

"*Fourth.* That the asylum, or hospital, in which cures are to be

effected, shall be able to accommodate t
curable, cases in the district it is design

Other high authorities might be given
what has already been quoted is sufficien
of the association of superintendents
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This board has given attentive consid
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In regard to the designation of the
mentioned above, the size of the re
ive argument. The State Hospital, i

nual saving of \$80,000, by the adoption of the plan offered for consideration, and which we are recommending because of our conviction that it will provide for the insane in poor houses and in increasing numbers, we continue the plan rather by enlarging the existing hospital building new ones on the same principle of economical administration, the supply of hospital beds adequate to the demand, and in effect we are at present, one-third part of the whole number of the insane is justly their due, and would otherwise be a burden on the hands of the tax payer, in order that we may give in superfluous attention to the other two-

2. AN INDUSTRIAL SCHOOL

The good work which is being accomplished by the Milwaukee Industrial School is one which is restricted so closely as that is to one locality. The work may be fitly illustrated by one striking case which could be given.

In one of the inland counties of Wisconsin a girl, convicted of larceny and sentenced to the state prison, before whom she was tried, had no knowledge of the Industrial School at Milwaukee, but she thought the prison would be a better place for her than the state prison. When the facts of the case came to the knowledge of this board (who also knew the influence of the school upon the girl), and were laid by him before the governor, the sheriff was requested to delay the execution of the sentence, the governor looked into the matter carefully, and the commutation of the sentence from the state prison to the industrial school. At this institution the girl remained a year, by which time the improvement in her general conduct had become so marked as to offer her a permanent home in the country. A place was soon found for her in a very respectable family, she has since remained with satisfaction, both to the family with which she lives.

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If this girl had been sent to jail she would almost certainly have entered upon a life-long career of vice and crime. If she had been sent to the state prison she would have found it difficult afterwards to obtain a reputable position on account of the bad name which would have clung to her, and a subsequent life of vice would have been among the strong probabilities. Now she is likely to grow up into a virtuous and worthy womanhood; and this different result is rightly to be credited to the school to which we allude. That such a difference is one of great importance will be admitted by any who will reflect upon the immense social influence of woman, either for good or for evil, and the possibilities of individual effort from such a source in one direction or the other.

The Milwaukee Industrial School, however, labors under certain disadvantages which would be obviated in a similar institution more strictly under the control of the state. It is situated in a central part of the city, facing one of the principal streets, so as to be liable to annoyance from former vicious companions of the inmates; it admits young boys as well as girls, and it is necessarily of a local character, depending as it does to a great extent upon local contributions for its maintenance from year to year. The state institution contemplated in our recommendation should be situated in a rural district not readily accessible to the inhabitants of vicious neighborhoods; its management should be placed in the hands of a board limited in numbers, and it should admit only girls. A well regulated school of this character would undoubtedly be worth more than its entire cost to the state, during every year of its existence.

In the same general connection, though not directly related to the subject under consideration, we call attention to an omission in the laws affecting any local industrial school like that at Milwaukee, in regard to which no separate recommendation is made here, because the omission will probably be supplied in the general revision of the statutes to be reported to the legislature this winter. At present it is impossible to make a legal transfer of a boy over ten years old from the Milwaukee Industrial School to the State Industrial School. That an occasional necessity for such a transfer is sure to arise, is self-evident, and the requisite modification in the statute should, therefore, not be postponed.

3. CLASSIFICATION OF C

Of the one hundred and fifty convicts received during the year ending October 1, 1876, 74 years of age, and of these, twenty-two were that one-half of the seventy-four convicts fit subjects for instruction, and that society their separation from the hardened offenders. Of those under 20, a total of fifty-nine of all received during the year. Of these a smaller proportion might probably be reformed of instruction, and if *any* could be, the expense of a separate department would pay to have a criminal in its midst when by an effort could have a man of honest conduct in his

The state industrial school at Waukesha for the custody, care, and instruction of juveniles of sixteen. Its mission has been a noble one fulfilled. That hundreds of boys have been saved from crime by the care they have received there is an acknowledged fact. Our state prison has more convicts than is found in any other similar institution in the population, and that this is true is in a very real sense the influence of this school upon the class of boys who otherwise be likely to grow up into criminals.

The plan now recommended is simply an extension of the industrial school principle to such other youthful offenders committed to the state prison. It contemplates the use of a portion of the now unused north wing of the prison for the confinement of such youthful prisoners in total separation from the others. It contemplates the use of suitable methods of instruction for such youthful prisoners. And it contemplates, finally, the commitment of such youthful prisoners to the maximum terms, leaving it discretionary with the directors to shorten the terms on the recommendation of the directors of the prison. With an enactment of the above recommendation, an extension of the vision contained in the following recommendation, the existing inducements to crime will be

OF CONVICTS.

victs received at the state prison, 1876, ninety-six were under 30 and 10 were under 20. If we estimate convicts between 20 and 30 were that society would be benefited by 50 offenders, we have, by the addition of these fifty-nine, or more than one-third of these fifty-nine, a greater or less reformed by a judicious course, the establishment and maintenance pay. The state cannot afford it by any ordinary expenditure it in his place.

Reformatory was established for the juvenile offenders, under the age of 18, a noble one, and has been nobly maintained, have been rescued from a life of crime. There, is a well known and on has a smaller number of convicts in a state of like in a very great degree owing to a class of boys who would otherwise be criminals.

Simply an extension of the industrial system to youthful criminals as are sent to the reformatory. It templates the fitting up of a wing of the prison, and the convicts in that wing, with effectual templates also the establishment for such prisoners, with work. Commitment of such offenders for reformatory with the executive to the satisfaction of the warden and board of directors. An enactment containing the subordination, and with the further recommendation, we believe that will be effectually diminished.

4. PROVISION FOR RELEASED PRISONERS.

We trust that the recommendation for some provision for convicts on their final release from prison, so that they will not be tempted to beg or steal their way home, will commend itself to the favorable consideration of the legislature without any argument farther than appears on the face of the proposition. For carrying out the purposes of the recommendation we suggest that the directors and warden of the State Prison be authorized in addition to the sum now allowed by law, to buy railroad tickets for released convicts to their homes, and also to supply them with such amount of money as may be necessary to defray their other reasonable expenses on the way.

5. LAWS RELATING TO MINOR OFFENSES.

The infliction of wandering paupers and criminals upon the state has been less severe, on the whole, during the present year than during that immediately preceding, but the question of its essential removal remains unanswered. Jails have no terrors for the professional tramp, and a conflict with the lawful authorities is to him a pleasant episode in his reckless life. Imprisonment is at the most a mere inconvenience, which he is willing to undergo for the sake of enjoying the fears and sufferings of quiet citizens when he is at liberty. In most cases he is a savage in his disinclination to labor and to the ways of civilization, and in his delight at any distress of his fellow-beings. As a tramp it is necessary that we should get rid of him, and the only way to do it is to make his sojourn among us in that character entirely unpleasant. There are only two practicable ways of accomplishing this object. With his peculiar organization moral suasion would be as the idle wind. We must either inflict physical suffering upon him or make him work.

The first of these methods, though probably efficacious, and advocated by many good men, is not in consonance with our traditions or habits, and may be set aside without further consideration. The use of labor as a punishment is also objected to by many, for reasons which are superficial, indeed, but yet so plausible as to convince unthinking people, who are not always in the minority. These reasons are, first, that the supervision of such labor, and the

official machinery necessary for it would entail an expense much greater than the value of the work obtained; and, second, that any work which is needed ought to be given to honest poor men, who are willing to earn the wages. The sentimental talk that labor is degraded by making punishment of it, is hardly worthy of being classed among reasons. The statement in relation to the expense of supervision will doubtless prove true in a majority of cases; but if expense is necessary to the extirpation, or even diminution of crime, where is the community that would think there could be wisdom in parsimony? If the safety of mothers and sisters, wives and children, cannot be assured without a more than ordinary outlay of money, we feel confident that the least populous of towns would respond to the demand with alacrity. There are two sides to the second proposition, though we may grant that it is measurably true in regard to work which will be performed by the willing laborers, if not otherwise accomplished. There are some kinds of work, however, which would not be done at all if not by enforced labor, and yet of the usefulness of which there is no doubt. Of such a character is the grading of country roads, and the breaking of stone for the less frequented streets in large towns and villages. While all will confess that these are good things to be done, very few will advocate taxation for the sole purpose of having them done. But if any neighborhood can see its way clearly to a combination of the two results, good roads and freedom from the lawless depredations of tramps, it is probable that active measures will be taken for securing them.

In Massachusetts, laws recently enacted give authority to local officers to relieve the immediate wants of vagrants, and to exact a limited amount of work in return. The city of Springfield, in that state, imposed upon the tramps whom it sheltered for the night and fed in the morning, the task of breaking stone until 11 o'clock A. M. The city of Hartford, less than thirty miles away, and of about the same size, had no such regulation, but tried to make the quarters where the tramps were lodged as uncomfortable as possible. The result has been that while Springfield took care of an average of five tramps nightly, Hartford was obliged to provide for more than a hundred. In our own state there have been some experiments in the same direction during the past year. The municipal court of Madison has begun sentencing tramps and drunkards

to confinement in the county jail, with hard labor. Of ten prisoners lately sentenced, five utterly refused to work on the second day. They were thereupon put in solitary confinement, on a diet of bread and water. Three of the five went to work after one day of this kind of experience, and the other two after three days. None of the ten have been seen in the vicinity of Madison since their release. In Janesville a similar course has been adopted, and sheriff Colley writes that "we are now working tramps on the streets, which is decreasing the number who apply for help at least one-half."

One great encouragement to vagabondism is the practice of furnishing tramps with transportation over the railroads from one place to another, a practice which prevails very generally throughout the state. The temptation to town authorities to get rid of unwelcome visitors by paying their fare to the next railroad station is very strong, and seldom resisted. But as the like temptation is yielded to in almost all the townships along the lines of railroads, there is nothing gained by any of them in the long run, and the tramps obtain the very thing that they desire. This practice ought to be forbidden under penalty, except where the ticket is paid for by the tramp, either in labor at a fair valuation or in money.

A late writer in the Chicago Tribune gives the following as the main features of a bill which, he thinks, would prove a practicable remedy for the tramp nuisance in any of the states:

"I. That summary arrests be authorized, the act of begging or vagrancy to be taken as evidence of the commission of the offenses.

"II. That the bill shall provide for compulsory labor; if suitable employment cannot be found in the county house, farms, or streets, they may be hired out to any other place, or in the service of any other person.

"III. That it authorize the transfer of any person thus offending to the town or place in which he has a legal residence, after he shall have earned a sufficient amount to pay the expenses thereof.

"IV. That officers shall not be allowed to purchase tickets and give them to the able-bodied tramps and vagrants to procure rides on railways, until after the aforesaid tramps shall have earned a sufficient amount to pay the expenses thereof.

"V. The bill should authorize towns or counties in which they have no legal settlement to take charge of such persons, with the

right of charging the expenses of their maintenance, if they are not removed in a reasonable time.

"The wise and simple rule we have presented above looks forward to the development of the spirit of *self-help*. 'Helping the poor to help themselves from their own standpoint.' It has been wisely said that a maximum of self-help means a minimum of pauperism. Once set the tramp and the vagrant to work, and stay the impulsive hand of indiscriminate alms-giving, and half the battle is won. The ease with which railway passes are furnished, and the manner in which tramps and vagrants are sent from place to place by local authorities, combined with the scattering of private alms-giving, has made the tramp what he is. Under the present manner of dealing with him the indolent workmen gradually sink, through occasional lapses, into chronic pauperism, and become professional mendicants or vagrants. We believe a uniform law, as above suggested, adopted by the principal states, would tend to hold in check the spread of vagrancy, cultivate the self-respect of the indigent, and avert the danger which awaits us if this terrible blight to our social system is allowed still further scope."

Prof. Wayland, of Yale College, in a paper read at the conference of charities at Saratoga, reduces the whole question to its smallest dimensions as follows:

"The evil is one of enormous magnitude, and, unless speedily arrested, threatens the very life of society. It therefore calls loudly for heroic treatment.

"Observe, then,—

"Vagrants are paupers, and therefore need relief.

"They are able bodied, and are therefore competent to contribute to their own support.

"They are, as a class, disposed to prey upon the community, and the community is entitled to adequate protection from their lawless violence.

"It seems to follow, therefore, that they should be placed in a situation which will,—

"*First*, Provide for their necessities.

"*Second*, Compel them to perform useful work.

"*Third*, Prevent them from committing crime.

"*Fourth*, Render it impossible for them to propagate paupers.

"This, of course, involves the idea of confinement, with enforced

labor and separation of the sexes. Now, such confinement with enforced labor may be under the immediate direction and control of the town, or county, or state authorities, and for a longer or shorter period."

Prof. Wayland is of the opinion that the Massachusetts plan of leaving it optional with cities and towns to provide labor for tramps or not is objectionable, because some localities will not do it; because tramps are set at liberty during a part of every day; because the value of the labor is small, and because no useful occupation or trade is learned in this manner. He thinks the most feasible plan yet recommended is the one prepared by the State Charities Aid Association and offered to the legislature of the state of New York at its last session, the following being the main features of the bill:

Adopting the existing judicial districts of the state as the basis of distribution, it provides for the appointment of a board of seven managers for each district, such managers to be reimbursed for their actual and necessary expenses while employed in the discharge of their official duties, but to receive no compensation for their time or services. It is, moreover, expressly provided, that no member of the several boards of managers shall be interested, directly or indirectly, in leasing or hiring buildings or land under the 4th section of the act, or in any contract for repairing or furnishing any of the buildings to be used as district workhouses, or in any contract for supplying food, raw material, or other merchandise, for any district workhouse.

It is made the duty of each board of managers, within six months of the time of their appointment, to hire buildings suitable for the confinement and employment of vagrants.

Proper provision is to be made for the separation of the sexes, by placing them, respectively, in buildings so far removed from one another that all inter-communication is practically impossible.

It is, moreover, wisely prescribed, that no female officer or subordinate shall be employed in any building designed for men, and no male officer or subordinate in any building designed for women.

It is made the duty of the board of managers in each district to decide upon the kind of employment suitable for the persons committed to each district workhouse; to provide for their necessary custody and superintendence, and, in such provisions for safe-keeping and employment, to have due regard to the forma-

tion of habits of self-supporting industry in the inmates, and to their mental and moral improvement. All powers requisite to the carrying into effect of these provisions are conferred upon the managers.

The managers are to open an account with all vagrants duly committed by the local magistrates to the workhouses in their respective districts, charging them with all the expenses incurred by the managers for their board and maintenance, and crediting them with a fair and reasonable compensation for the labor performed by them, and at the expiration of their terms of sentence, paying to them such balance as shall be found due to them at the time of their discharge.

The "contract system" is strictly prohibited, and no person is to be allowed to oversee the labor of the inmates who is not employed and paid by the managers.

So soon as the workhouse in any district shall be prepared to receive inmates, it shall be the duty of the justices of the peace, police justices, or other magistrates of such district (any law to the contrary notwithstanding) to sentence and commit all persons convicted of being vagrants under any existing or future law of the State, whether such law shall apply to the whole State, or to any special county thereof within which said person shall be convicted, to the district workhouse of the judicial district in which such conviction shall take place, for a term not less than ninety days or more than six months on the first conviction, and for a term not less than six months or more than one year on a second or subsequent conviction.

It is also made the duty of every magistrate, justice and court which examines or convicts or commits any person, under authority given in this act, to cause a record to be kept of the name; age, birthplace, occupation, last place of residence, and kind of employment, of all persons so committed by them, together with the reason given for, or the particulars of the vagrancy charged. A copy of said record is to be transmitted upon the official order of the commitment of said persons to the superintendent of the district workhouse, as a part of the paper or order which shall accompany each person to the workhouse, and the superintendent of such workhouse is to enter and keep in a book of record all these and such other facts as are by law required concerning the inmates of poorhouses.

It is further provided that the managers of each district, having hired two or more buildings and land suitable for the confinement and employment of vagrants, shall make an estimate of all necessary expenses to be incurred in establishing, equipping and maintaining said workhouse for the year ensuing, and shall then apportion the expense, so estimated, among the several counties composing the district for which said managers were appointed, pro rata, to the property tax of each county, as the same shall be determined on.

The State Charities Aid Association gives the following reasons why the adoption of its plan would prove to be economical in the end, in the state of New York:

"1. Because it proposes to transfer from the county jails, where they spend the time of their sentence in absolute idleness, all persons convicted as vagrants, and place them in workhouses, where they will be compelled to support themselves. The counties will thus be relieved of the burden of maintaining thousands of idle and vicious persons while they are undergoing punishment.

"2. A system of reformatory treatment will be carried on in the workhouses, and it is believed that a portion of the inmates will by this means be rendered permanently self-supporting.

"3. The proposed discipline will become irksome to incorrigible vagrants, many of whom will leave the state, and thus the workhouses will, both by reformatory and deterrent influences, materially diminish the vicious population of the state.

"4. The actual expense of establishing the workhouses will not be great, since the members of the board of managers are to receive no salaries, and the bill provides only for the *hiring* of buildings, and the purchase of furniture, tools, and raw material for the employment of the inmates.

"As no buildings are to be erected, the number hired can at any time be diminished, should the diminished number of vagrants warrant such a step."

The legislature of Rhode Island passed a law last winter for the suppression of vagabondism, of which the following is the full text:

AN ACT for the punishment of tramps.

It is enacted by the General Assembly as follows :

SECTION 1. Every able-bodied man who shall go from house to house, or from place to place, begging, or who shall otherwise seek the means of subsistence by begging, shall be deemed to be guilty of a misdemeanor, and upon conviction thereof, before any justice court, shall be sentenced by such court to hard labor upon the public highways, or other public work of the town in which he shall have been convicted, for a term not exceeding ten days; such labor to be performed by such offender in the custody and under the direction of any surveyor of highways, or officer discharging the duty of surveyor of highways, or such other public officer or contractor as may have charge of any public work for such town.

"SEC. 2. Every able-bodied person who shall apply to any overseer of the poor of any town for relief or support, may, by such overseer of the poor, be provided with work upon the highways or some other public work of the town where such application shall be made, and put such applicant at work for a term not exceeding ten days, under the direction of the surveyor of highways, or the officer discharging the duties of such surveyor, or such overseer of the poor may put such applicant to work upon some other public work of such town under the direction of the officer or contractor having control of the same, for a term not exceeding ten days; and such applicant, and any person convicted under the preceding section of this act, shall be supported and relieved by such overseer of the poor while such person is employed and faithfully labors upon such highway or public work, or is in the execution of a sentence imposed under the preceding section hereof; and if any person neglects or refuses to perform the work assigned him under the provisions of this section of this act, he shall be deemed to have committed the misdemeanor described in the first section of this act, and may be convicted and sentenced for such offense as is in the said preceding section provided.

"SEC. 3. Any surveyor of highways, or officer having charge of any public work to whose custody any person convicted of violating any provision of this act shall have been sentenced, may employ any means to compel such sentenced person to work, authorized to be employed by the superintendent of the state workhouse and

house of correction to compel the inmates of that institution to labor, or he may use such means to make such sentenced person labor, as may be employed by any keeper of the asylum for the poor in the town where such sentenced person shall have been convicted.

"SEC. 4. Every person convicted for a second time of violating the provisions of this act shall be sentenced to the state workhouse and house of correction for thirty days.

"SEC. 5. The overseer of the poor for any town adjoining another state shall cause a copy of this act to be posted in some conspicuous place, on or near every highway leading from an adjoining state into such town."

We have been thus particular in noting action in other states looking toward the extirpation of the tramp nuisance for two reasons. The first is, that by studying the drift of public opinion and legislation elsewhere, useful hints may be obtained for our own guidance, and the second and more important is to show the danger that may be incurred here by being behindhand in the adoption of vigorous measures of our own. Whenever any state takes effective action for the stamping out of vagabondism within its borders, the army of tramps in other states where such action has not been taken is thereby augmented by the number of those frightened away. If New York should adopt the plan proposed by the State Charities Aid Association, it is probable that thousands of her vagrants would set out for the west, and if Wisconsin should present a favorable field for their operations, there is no doubt that Wisconsin would then soon swarm with them, notwithstanding its advantageous location a little one side of their usual route of migration. It is every way wiser that we should prepare for an evil in advance than that we should suffer ourselves to be half overcome before making any show of resistance.

6. PROVISION FOR IMBECILE CHILDREN.

The State Board of Charities and Reform was directed, by an act of the last legislature (chapter 278, laws of 1877), "to inquire into the necessity and expediency of organizing a school for the instruction and training of feeble-minded or idiotic children, and to ascertain as nearly as practicable the number of such children in

this state who are of proper school age, and who could probably be benefited by a school adapted to their peculiar wants," together with other statistics upon the same general subject, and to make a report thereon to the next legislature.

In conformity with the requirements of the act, the president and vice president of the board were appointed, at the annual meeting of 1877, a committee to visit the Illinois Institution for the education of feeble-minded children, and to make a report at the next meeting of the board as to the nature of the work performed at that institution, and also such other facts and considerations as might be of importance in the prosecution of our inquiries.

The following is the report of the committee.

To the State Board of Charities and Reform :

The committee appointed at your last annual meeting to visit the Illinois institution for the education of feeble-minded children, respectfully present the following report :

The institution was visited on the 2d day of May last, in its present temporary quarters at Jacksonville. The day was employed mostly in obtaining information in relation to the collection of statistics, in witnessing the various physical and mental exercises of the pupils, the agencies and appliances employed in their training, the examples and practices by which they are initiated into their social and moral relations, and in ascertaining, as far as possible, the practical results to the pupils and the state from such an institution.

In relation to the collection of statistics, the superintendent was of the opinion, from the delicate nature of the information required that the best plan would produce very unsatisfactory results at first. Their first effort was made through the practising physicians of the state; but circulars were sent out the third time before any reliable statistics were obtained. After hearing an explanation of the plan proposed at our last meeting, that of addressing circulars to school district clerks through the office of the superintendent of public instruction, he expressed himself as decidedly of the opinion that it was preferable to the one they had adopted.

The exercises of the school were much better than we anticipated, and taken in connection with the healthy, orderly and neat appearance of the pupils, furnished unmistakable evidence of their

susceptibility to physical, intellectual and moral improvement under suitable training. They seemed so attentive and interested in the various studies and exercises of the school room; so well disciplined in the prescribed movements and changes of the several classes from hour to hour, so orderly and well-behaved in their departments, in the dining rooms using their napkin appropriately, and handling the knife, fork or spoon with tact, so free from the defective speech which imbeciles so frequently present, and the repulsive habits that are supposed to be inseparably connected with idiocy, that it was difficult to realize that the pupils present represented the average idiot.

The object of this visit being a part of an investigation into the propriety and expediency of establishing a similar institution in our own state, the principal aim has been to ascertain, by observation and inquiry, and report the practical results to the pupils and the state of a training in this institution, rather than the particular methods and appliances employed to produce them; and yet a brief summary of the system as exemplified in the presence of your committee, and which is the one aimed at in all institutions of this character, may not be considered out of place in this report.

A generous diet, pure air, physical exercise, bathing, etc., are relied on to strengthen and invigorate the system, with gymnastic appliances for the exercise of defective parts of the body as well as for the development of the whole. The play-ground furnishes opportunity for exercise in the open air, and light labor on the farm or in the workshop, for those who are capable of such employment, is so directed that it not only furnishes, in kind and amount, the exercise needed, but impresses the pupils with the idea that they are accomplishing something, and gradually leads them into the actual operations of life by which they are to become self-sustaining.

Many of the children here were received in a helpless condition without the ability to properly use hand or foot. The feet are taught to step by bringing them, with the regularity of a walk, in contact with a spring board which alternately receives and throws them back; the gait is regulated by conducting them between the rounds of a horizontal ladder or upon a track for each foot with alternate steps varying in elevation. The hands are taught to grasp by clasping them about the rounds of an inclined ladder and requiring them to support the weight of the body, or by the use of bags

holding from one to ten pounds of beans or other light substance, which are thrown back and forth between the pupil and teacher, or from one pupil to an other. The balancing pole is used for the same purpose.

The practically deaf who give no heed to sounds are aroused by surprise sounds, sounds connected with some natural desire, music, etc. The defective speech almost universal with this class, is overcome by a well arranged plan of tongue exercises, which are practised constantly until they can utter the desired sounds. Builders, blocks, colored paper, cards and other similar contrivances are used to instruct them in number, form, size and color; words and the meaning of words are taught by pictures and objects. The vacant and wandering sight is corrected, and the touch and taste improved by appropriate exercises. Thus, instead of trusting to the every day experience of ordinary life for their gradual development, the senses of these children require cultivation by this specific system of education, before any other improvement can be attempted. If found capable, they are then advanced to the simpler elements of the common school, which is carried as far as the time allotted — that is from five to seven years — and as the capability of the pupil will warrant.

“The education furnished by the institution includes not only the simpler elements of instruction usually taught in common schools, where that is practicable, but embraces a course of training in the more practical matters of every day life, the cultivation of habits of decency, propriety, self-reliance, and the development and enlargement of a capacity for useful occupation.” And in the opinion of your committee the results which have been accomplished here have fully equalled the expectations of the friends of the pupils and of the enterprise, and would justify a similar undertaking in our own state.

Your committee also visited the new buildings of the institution, located at Lincoln, which are approaching completion, and will be ready for occupancy at the commencement of the next school year. The site in some respects is not what could be desired for such an institution, but the building seems to be a model of perfection, the outline being symmetrical, the rooms large, and so arranged as to admit a generous supply of sunshine and pure air, when necessary, to every apartment, with ample accommodation for three hundred

pupils, fitted up with all the modern improvements, and, judging from the cost of public buildings in Wisconsin, it has been constructed very economically.

The committee desire to express their obligation to C. T. Wilbur, superintendent of the institution, for the facilities afforded them in their examination of the workings of the institution under his charge. He is the right man in the right place, and needs no commendation from us. We are also under obligations to Fred. H. Wines, secretary of the board of public charities, who accompanied us as "guide, philosopher and friend," and gave us much valuable information concerning the charities of his state.

A. E. ELMORE,

W. W. REED,

Committee.

Immediately after the return of the committee, and upon their verbal report to the board, measures were taken for as thorough a search for the imbecile children of the state as was practicable in the time at our disposal. Through the courtesy of Prof. Searing, Superintendent of Public Instruction, we were enabled to send without additional expense a copy of the following circular to each of the 5,000 school district clerks of Wisconsin, the documents being inclosed with the regular packages of blanks from the State Superintendent's office.

OFFICE OF THE STATE BOARD OF CHARITIES AND REFORM, }
MADISON, Wis., July, 1877. }

To School District Clerks:

The law (chapter 278, laws of 1877), makes it your duty to furnish the State Board of Charities and Reform with such statistics in relation to feeble minded children as may be required by said board.

By direction of the latter, I send the blank which may be found on the opposite side of this sheet, and which you are required to fill out in compliance with the law, provided any such children are found in your district. Should there be none, the fact must be stated, and in either case return the blank, properly signed, to this office, immediately after completing the school census, according to law.

In order to furnish reliable statistics upon this subject, it will be necessary to make inquiry in every family where the facts are not known to you, and of every physician practising in your district.

Respectfully yours,

T. W. HAIGHT, *Secretary.*

[Opposite.]

List of persons of proper school age mentally incapacitated for receiving instruction in public schools, and resident in school district No. —, town of —, county of —.

Names.	Ages.	Cause of Mental weakness.	How supported.	Name of parent or guardian.
.....

I hereby certify that the above statement is complete and correct to the best of my knowledge and belief.

— —, *District Clerk.*

At the time of sending the above circular, there were 5,005 organized school districts in the state, of which a considerable number (though just how many is not known), are joint districts situated in two or more counties. The number of public school-houses in the state overruns the number of districts by 141, but as the nearest approximation that we can obtain to the number of districts in the several counties is the number of the school-houses, we have used that as a basis in our consolidated reports as follows:

TABLE, showing number of children mentally incapacitated from receiving instruction in the public schools.

COUNTIES.	Number of school houses in the county.	Number of district cl'ks making report.	Number of feeble minded children reported by district clerks.	Cases of congenital id- iocy included in re- ports.	Cases of mental weak- ness, from disease or accident.	Cases in which cause of mental weakness was not reported.	Blind children re- ported.	Deaf children reported.
Adams	63	19	1	.....	.....	1	.....	..
Ashland	3	3	.....	.....	.....	.....	.....	..
Barron	42	17	3	.....	3	.....	.....	..
Bayfield	1	1	.....	.....	.....	.....	.....	..
Brown	85	36	9	2	3	4	.....	6
Buffalo	75	23	6	2	.....	4	2	1
Burnett	8	4	1	1	.....	.....	.....	..
Calumet	66	21	3	.....	.....	3	.....	2
Chippewa	79	29	2	.....	1	1	1	3
Clark	60	17	.....	.....	.....	.....	.....	..
Columbia	148	40	8	2	3	3	.....	1
Crawford	89	19	5	1	3	1	.....	1
Dane	242	66	12	2	7	3	.....	3
Dodge	189	49	11	3	3	5	2	1
Door	42	17	2	.....	.....	2	1	2
Douglas	3	.....	.....	.....	.....	.....	.....	..
Dunn	83	31	5	2	2	1	1	1
Eau Claire	62	28	3	2	1	.....	.....	1
Fond du Lac	170	53	13	6	4	3	.....	3
Grant	215	71	14	5	2	7	.....	5
Green	183	30	10	3	4	3	.....	2
Green Lake	70	17	1	.....	.....	1	.....	1
Iowa	120	38	9	2	1	6	.....	1
Jackson	64	26	5	1	.....	4	.....	1
Jefferson	132	42	8	.....	1	2	1	4
Juneau	89	28	7	5	2	.....	1	..
Kenosha	61	12	3	3	.....	.....	.....	..
Kewaunee	50	12	4	.....	3	1	.....	4
La Crosse	65	13	3	3	.....	.....	.....	1
La Fayette	114	32	2	.....	1	1	.....	3
Lincoln	8	1	.....	.....	.....	.....	.....	1
Manitowoc	107	40	12	4	.....	3	.....	5
Marathon	63	27	3	.....	2	1	.....	2
Marquette	56	12	1	1	.....	.....	.....	1
Milwaukee	67	20	1	.....	1	.....	.....	2
Monroe	125	60	9	.....	4	5	.....	3
Oconto	42	29	5	2	.....	3	.....	..
Outagamie	93	24	5	1	2	2	.....	3
Ozaukee	59	25	8	1	3	4	1	..
Pepin	37	14	3	1	.....	2	1	1
Pierce	95	50	10	1	4	5	1	2
Polk	57	29	2	.....	1	1	.....	..
Portage	82	19	2	.....	1	1	.....	..
Racine	77	25	6	1	3	2	.....	1
Richland	121	35	9	3	2	4	.....	4
Rock	169	65	3	4	1	3	2	1

Table of mentally incapacitated children, etc. — continued.

COUNTIES.	Number of school houses in the county.	Number of district cl'ks making report.	Number of feeble minded children reported by district clerks.	Cases of congenital idiocy included in reports.	Cases of mental weakness, from disease or accident.	Cases in which cause of mental weakness was not reported.	Blind children reported.	Deaf children reported.
St. Croix.....	86	15						
Sauk.....	162	66	16	6	4	6		
Shawano.....	45	12						3
Sheboygan.....	113	44	10	1	5	4		3
Taylor.....	6	2						
Trempealeau.....	84	20	1	1			2	3
Vernon.....	145	69	9	3	2	4		2
Walworth.....	129	37	2	1		1		
Washington.....	101	38	3	2		1	2	6
Waukesha.....	117	46	9	4	4	1		2
Waupaca.....	104	51	12	6	2	4		4
Waushara.....	92	20	2	1	1			
Winnebago.....	101	27	2		1	1		
Wood.....	30	7	1		1			1
Total.....	5,146	1,721	296	89	88	119	18	96

Besides the reports mentioned in the foregoing table, 51 were received without dates or other means of ascertaining from what district they came. Forty of the 51 reported no feeble minded children, in the districts, six mentioned children of that character, and five reported only deaf or blind children. The whole number of reports received from district clerks was therefore 1772, in which 302 idiotic or imbecile children were reported to the board. It will be seen that not many more than one-third of the whole number of districts were reported upon by the clerks, but it would be unfair to estimate that the other two-thirds might contain a proportionate number of imbeciles. On the contrary it is probable that the great bulk of the non-reporting districts were such as had no feeble minded children, and the officers of which thought it not worth while to send back a negative answer. That this was not always the case, however, is within the personal knowledge of individual members of this board, and when not a single imbecile is reported from the great city of Milwaukee, we are sure that the work of investigation was scarcely attempted by the school officers there.

But, putting aside mere probabilities, we have obtained the actual names of more than 300 children in the state who are incapacitated by nature or accident from deriving any advantages from the common school or any other public institution now in existence among us. Whether the additional number of such children is 100, or more, is of little moment except in determining the capacity of a school for their instruction, if such a school be considered necessary.

The fact being thus established that there are idiotic and imbecile children among us in such numbers as to warrant the establishment of an institution for their instruction and physical development, if such an institution is necessary and profitable in any case, it will be proper to give here a brief review and summary of what is accomplished by the application of modern methods to children of this defective character.

These methods for the treatment of idiocy have only been practised for the past forty years, and were begun by Esquirol and Seguin, at Paris, in 1837 or 1838. In 1842 the Abendberg school was founded in Switzerland by Dr. Guggenbuehl; in 1846 Dr. Kern established a school for idiots at Leipsic, and similar ones were soon after organized in England. The first institution of this character in Scotland was opened in 1852, and the corner-stone of the school at Earlswood, Surrey, was laid by Prince Albert in June, 1853. Most of the European nations followed these examples. The first school for idiots in America was begun in July, 1848, at Barre, Mass., and was a private institution, under the charge of Dr. Hervey B. Wilbur. The success of this enterprise was such that the state of New York established an experimental school at Albany, in 1851, for which Dr. Wilbur's services were secured, and which resulted in the establishment of a permanent institution at Syracuse, in 1854. The state institution of Massachusetts was organized experimentally, in October, 1848, and soon became a permanent establishment. Other states followed this lead with more or less promptness, the Pennsylvania Training School for Idiots having been founded in 1852, that of Connecticut in 1855, that of Ohio in 1857, that of Kentucky in 1860, and that of Illinois in 1865.

In 1853, after the New York institution had been on trial for two years, the trustees made a report to the legislature, recommending its re-organization in a permanent shape. From this report we

make the following extract, which shows the main features of the subject in a very clear light:

"A recurrence to our first report will show with what caution, not to say doubt, the trustees entered upon the discharge of their duties. The popular and current opinion that this class of afflicted humanity were incapable of any essential improvement, had not been entirely changed by the imperfect information we possessed of the efforts made in other countries. Still, enough had been ascertained to justify an experiment on a moderate scale. It had been discovered that the term "idiot" very inaccurately described the different conditions of imbecility of intellect; that there were grades and degrees at great distances from each other; that the effects of bodily injuries had been confounded with original organization; that ill treatment and neglect had obscured minds naturally healthy, and finally that by proper discrimination and training, adapted to each case, in many instances the intellect had been aroused and developed, and new creatures born into the world. Fearing to trust too much to the sympathies and glowing hopes which such facts were calculated to excite, the trustees determined to test the experiment which the legislature had authorized, by the same rigid rule which they would apply to any new theory in physics, viz: to see for themselves how it worked; to compare the condition of the pupils when admitted, with their condition at subsequent periods.

"They have done so; and they now say, as the results of their observations, of their comparisons, and of their deliberate convictions, that the experiment has entirely and fully succeeded. *All* the pupils have improved, some in a greater and others in a less degree. But the single fact of some improvement settles the question; for all experience shows that if a lodgment in the mind can once be made, it furnishes a foundation upon which further ideas, facts and combinations may be erected. This first lodgment is the turning point, and when it is accomplished, everything follows with more or less rapidity, according to circumstances. We have witnessed this rapidity in some instances with surprise, not to say astonishment.

"The process is as curious as it is interesting, and the manner of it, by commencing with efforts to teach what many animals are capable of learning, and advancing gradually and carefully from step

to step in the scale of intelligence, is admirably described in the appendix to the report of the superintendent.

"The trustees therefore report and confirm absolutely what they intimated as their belief in their first report; that in almost all cases, and with very few, if any, exceptions, those usually called idiots, under the age of 12 or 15, may be so trained and instructed as to render them useful to themselves, and fitted to learn some of the ordinary trades, or to engage in agriculture. Their minds and souls can be developed so that they may become responsible beings, acquainted with their relations to their Creator, and a future state, and their obligations to obey the laws and respect the rights of their fellow citizens. In all cases, we believe, for we have seen what has been accomplished in apparently desperate cases, they can be made cleanly and neat in their personal habits, and enabled to enjoy the bounties of Providence and the comforts of life, and to cease being incumbrances and annoyances to the families in which they reside."

The foregoing quotation is typical of the reports of those who are conversant with the results of methodical instruction upon the feeble-minded. In his report for 1859, Dr. Wilbur says of his pupils:

"They are daily in the school-room, and engaged in exercises of an intellectual character. They learn the use of language; they learn to obey commands. They are exercised in articulation to give them the power of speech, or for the purpose of securing distinctness of utterance. They acquire notions of form and color; of the qualities of objects and their uses. They learn to count, and to understand other relations of numbers. They are taught to observe pictures, as the representatives of objects; then words in the same relation; the transition is then to reading and writing.

"In all these various exercises, reference is had not only to the mental discipline acquired in them, but also to the more practical use that is to be made of these attained powers.

"This brings me to speak of the practical results, such as are to be taken into account in estimating the value of the institution in the light of political economy.

"Among the first lessons of our pupils are those designed to teach them to take care of themselves as far as possible in all personal matters; to assist in various household occupations and little matters of out-door work. As soon as they become of sufficient

age, strength and intelligence, they are assigned regular daily duties. At first these duties are performed under the constant supervision of the attendants, but afterwards they are expected to do their tasks without oversight.

"A few of the female pupils now do no small amount of work in the bed rooms, dining rooms and laundry.

"In the summer time the larger boys are employed in agricultural labor. During the past season they have done nearly all the work upon our farm and in the garden. A list of the products is given in an appendix, and it will be seen from that statement that no inconsiderable amount of work has been accomplished by them.

"Quite a number of them have arrived at a point, and many others are progressing towards it, when their labor is worth as much as the cost of their support, under intelligent direction. They are happy, contented and obedient, when thus occupied; whereas, without a proper education, and without occupation, they are not only restless and uncomfortable themselves, but a burden to their friends, or perhaps a public nuisance.

"Within a month or two, by way of experiment, to test the mechanical ability of our pupils, and to furnish them with occupation during the winter months, we have introduced the manufacture of boots and shoes. A shop has been fitted up, and a shoemaker employed to instruct the boys. Short as has been the time since the experiment was instituted, it is already seen that we can manufacture during the winter months all the boots and shoes needed in the establishment for a year, besides imparting a mechanical skill that will increase the productive power of the pupils. All who have witnessed the amount and quality of the work already accomplished by the boys engaged in it, look upon it as an important step in the management of the asylum."

The methods now employed for the moral and physiological education of idiots and imbeciles, which have been alluded to in the special report of Messrs. Elmore and Reed, are described in detail in Seguin's classical work on Idiocy, and need not be entered upon here. The fact exists that the obscure intellects of beings whom we have been in the habit of looking on as human vegetables, may, in many cases, be brought into the light of knowledge, and that their objectless movements may be trained to contribute mainly, if not entirely, to their own support. The attainment of such results

would be no small reward for the expenditure of much time and effort, if nothing further were to be expected. The awakening of a human soul from the lethargy of total ignorance to a realization of its place in the scale of created beings is certainly worth doing for its own sake; but there are other aspects in which the subject should be studied.

The policy of educating all children, so far as it can be done, has been considered as the only safeguard of a republic, at least since the days of Montesquieu, and has become a settled principle in the states of the Union. In Wisconsin the parents of imbeciles pay for the education of the other defectives — the blind and the deaf — according to their means, and in general all classes pay for the instruction of the children of all the other classes, except in this one case. And as it is shown that almost all so-called idiots are capable of being educated to a greater or less degree, it would seem to be no more than right that they should be dealt with as are the other defective classes, and that their latent abilities should be brought out and turned to the best advantage of themselves and of society.

As a summing up of this part of the question, we may be pardoned for using the language of a report upon the same subject made by the committee on charitable and benevolent institutions, to the Wisconsin Assembly eleven years ago. "That the benefits of these institutions," say the committee, "are commensurate at least with the means necessary for their successful operation, may be fairly inferred from the fact, that no state having once established such an institution has ever been known to abandon the enterprise as an unwarranted expenditure of the people's money. On the contrary, in every case where experimental schools were first established, supported principally by private charity and the indomitable energies of a few philanthropists, the results were such as to convince those more directly interested first, and gradually the people, that the objects sought to be attained were in the range of probabilities; the necessary legislation soon followed, and these small beginnings have all given way to large and flourishing state institutions, co-extensive in some states with the necessities of the class sought to be benefited.

"We believe that this subject addresses itself to your favorable consideration on the ground that, in common with other children,

they have a right to such an education as they are susceptible of receiving; and we believe that it is not only the duty of the state to furnish the means, but also to *require* the education of *all* its children."

The economical relations of the matter are more difficult to follow, but it is believed that even from a financial point of view there would be nothing lost by an establishment for the education of the feeble-minded. The cost of such education is now about \$200 a year for each pupil, in the state of New York, and would probably not be more in this state. This expenditure would have to be continued for a term of years in each case, probably for an average of seven years, though we have not definite statistics upon this point. If this assumed average is correct, the cost of education of each idiot to the state will be about \$1,400, after the erection of suitable buildings. As a return for this outlay we shall have habits of decency instead of indecency in almost every case undertaken, and in a large majority of the cases we shall make the pupils nearly or quite self-supporting during the remainder of their lives. In every one of the latter cases there will be a direct profit to the public of the difference between the cost of instructing an individual for a few years and that of supporting him wholly during his entire life; and even with those individuals where the necessity of an attendant is obviated, gluttony cured and cleanly habits induced, the investment required to accomplish these results can hardly be considered a bad one.

In conclusion, — and by way of recapitulation, — we have found that there are teachable idiots in the state in sufficient numbers to warrant the establishment of an institution devoted to their especial instruction; we are convinced that such instruction is both morally and economically profitable to the people of the state, and we believe that it is the right of all children bred among us to receive an education according to their capacity. We therefore recommend that early and effective action be taken by the legislature for the establishment of an institution for the training of feeble minded children.

INTERNATIONAL PRISON CONGRESS.

In addition to the foregoing recommendations, the State Board of Charities and Reform, at its meeting of December 13, 1877, adopted the following resolution.

Resolved, That, in the opinion of this board, it is important that the state of Wisconsin should be represented officially at the international prison congress, to be held at Stockholm in August, 1878, and it is hereby recommended to the legislature to authorize the appointment by the governor of such official representative, and also to appropriate a sum sufficient to defray the expenses of his traveling to and from, and his attendance at the congress.

The influence of these prison congresses upon the penology of the world is very marked, and tends greatly towards the reduction of crime in all countries. Their power for good increases with the number of countries and states represented, since thereby a more complete and free comparison and exposition of the nature and success of different methods of treatment of criminals are obtained. Wisconsin has always been in the front rank of states which aim at the prevention of crime by intelligent and methodical action, and her voice should not be unheard in the approaching international prison congress, the most important meeting of the kind, probably, that has ever been held. The following preamble and resolutions adopted by the last conference of charities at Saratoga are fully indorsed by this board.

Whereas, The Government of Sweden and Norway has addressed an official invitation to all foreign governments to take part in the International Prison Congress at Stockholm, during the second half of August. in the year 1878, in compliance with which invitation, Dr. Wines, President of the International Penitentiary Commission and U. S. Commissioner to the Congress, proposes that each of the several states should contribute information and send delegates to the Stockholm Congress; therefore—

Resolved, That the Conference of Charities now in session at Saratoga, N. Y., hear with satisfaction of the steps taken by the Swedish Government, and by the British Government, through its Secretary of State for the Colonies, the Right Honorable the Earl of Carnarvon, to promote the usefulness and success of the International Prison Congress in 1878; and that this Conference desires to do its part towards the collection and transmission of information concerning prisons, reformatories, etc., in the United States.

Resolved, That this Conference declares its earnest hope that the governors of the several states will take effective measures to secure for the Congress, through competent persons, information on

the prison question within their several states, similar to that collected by the British Colonies in their respective jurisdictions, and that they will also take measures to have their states duly represented in the Congress.

"Resolved, That we have learned, with much pleasure, that Dr. Wines is preparing a work on "The State of Prisons and Prison Discipline and Reform throughout the Civilized World," to be completed and printed before the Congress meets, believing that such a work will be of great interest to the friends of this cause, and also greatly helpful to the cause itself."

II. THE STATE INSTITUTIONS.

It affords us much pleasure to be able to speak in terms of general approval in regard to the administration of affairs during the past year at the state institutions, which the law places under our supervision. The boards of management appear, in all cases, to have worked together harmoniously, effectively, and with a due regard for economy. The superintendents seem to have performed their respective duties with a conscientious desire to promote the welfare of those whom the state has placed in their charge, and their efforts have been seconded by assistants of a high order of merit.

The estimates of expenditures for the ensuing year have all been submitted to this board (with the exception of the estimates of the Northern Hospital for the Insane), before publication, and the modifications and reductions suggested by us have been acceded to in every instance. The estimates of the Northern Hospital also have been carefully prepared, and do not seem too high for the several objects specified, it being understood that in our opinion the \$190,000 asked for to build additional wings to this hospital, as well as the \$80,000 for similar wings at the state hospital, ought not to be appropriated, and that in general no farther additions ought to be made to either of the hospital buildings for the purpose of affording room for more chronic cases to be treated in association with those of an acute character. To treat the chronic insane as invalids is generally absurd, since their mental malady does not, except in a minority of cases, interfere perceptibly with their physical health. They need a *home* instead of a hospital, to live in, and since the

comfort of the former is greater and the expense decidedly less, we can see no reason why it ought not to be furnished in place of a hospital addition.

The whole subject of supervision for the chronic insane is considered at length in another part of this report and need not be dwelt upon here. We are obliged to dissent, however, from the theory that inmates of hospitals of large capacity are to be cared for at a less cost than those of smaller hospitals. The experience of all of the states having such institutions shows that this is not the fact. The least expenditure per capita that was ever shown at the State Hospital was during the year 1864, when the average number of patients was 187, and they were supported at a cost of \$3.63 per week each, currency being then at an extravagant discount. One of the most economically conducted hospitals in the country now is the Butler, of Rhode Island, whose last report received by us (of January, 1876,) shows an average during the preceding year of 135 patients, who were supported at a per capita cost of \$4.21 weekly. Such facts, which might be multiplied indefinitely, are more useful as bases of calculation than the most plausible theories, and have led us to the conclusion that, however much possibility there may be of combining cheapness of subsistence and care with immense structures, there is not enough probability of such a result to warrant any new experiment in that direction.

In the institutions for the blind and the deaf and dumb, the expenses have been kept well within the appropriations up to this time, and we hope may show balances in favor of the schools at the end of this fiscal year. The suggestion of this board in regard to the propriety of requiring more household work from the scholars has been followed apparently with good results.

The State Prison and the State Industrial School for Boys continue to be in a satisfactory condition.

The following table shows the amounts appropriated to each of the state institutions named therein, since its foundation :

Name of Institution.	Amount appropriated previous to 1878.	Amount appropriated for current expenses previous to 1878.	Amount appropriated for permanent improvements previous to 1878.
Institution for the Blind.....	\$681,475 91.	\$346,295 12	\$335,190 79
Institution for Deaf and Dumb...	644,549 83	522,772 48	121,777 85
State Hospital for the Insane....	1,728,902 06	1,100,130 15	626,771 91
Northern Hospital for the Insane..	1,075,078 06	422,045 21	653,062 85
State Industrial School for Boys..	647,429 36	469,878 97	177,550 39
State Prison	1,114,530 58	.....	.....
Total.....	\$5,889,465 80	.....	.....

A slight discrepancy between the above table and that contained in preceding reports of this board, which will also be found in a comparison of the other tables of financial statistics of the several state institutions with the previous corresponding ones, arises from the attempt to bring these statistics to a uniform basis. The tables might be founded upon the acts of appropriation by the respective legislatures, the reports of disbursements by the state treasurer, or the reports of the treasurers of the institutions themselves. In the first case we would have the gross amounts for the years ending with March or April, in the second the amounts actually paid over to the local treasurers during the years ending September 30, and in the third case the amounts paid out by the local treasurers for the matured bills of the several institutions for the last mentioned term. Either method, if followed uniformly from year to year, would give a correct aggregate for a number of years, but neither of them will often show the precise cost of administration for any specified year, as bills might lie over unpaid from the latter part of one fiscal year to the beginning of another, or stocks of certain kinds of goods might be made sufficient in one year, owing to convenience or extraordinary cheapness, to nearly or quite suffice for the demands of two. In the general financial tables of the present report, the expenditures of the institutions are taken from the reports of the state treasurer, as being most easily understood as well as most easily obtained. The figures will therefore show the payments made to the local treasurers only, and will in most cases include balances on hand at the institutions.

The double system of accounts indicated above, is liable to serious objections, besides the confusion which an inquirer is apt to experience in looking up any special line of financial investigation. It is within the knowledge of this board that the control of funds drawn from the state treasury for the institutions, has been a source of strife and contention in the towns where they are situated. The experience of the state shows that local banks are not always safe depositories of the public moneys, while the state treasurer is made the custodian by law of all the funds of the state, and gives bonds for the faithful discharge of his duty. In our opinion there is no good reason why the moneys appropriated to the state institutions, should not remain in the state treasury until wanted for the payment of current bills. The drafts upon the treasury for such payments would be good for their full value in every portion of the state, and the establishment of such a system would, in general, prove convenient and safe.

The following table of quantities and prices of staple articles of housekeeping, used at the institutions, is compiled from the itemized reports of expenditures, sent to this board by the several superintendents. The beef used at the hospitals for the insane is, for the most part, bought on foot, and the live weight reported.

TABLE showing quantity and cost of various articles used at the state institutions during the year ending September 30, 1877.

ARTICLES.	INSTITUTION FOR THE BLIND.		DEAF AND DUMB INSTITUTE.		STATE HOSPITAL.		NORTHERN HOSPITAL.		INDUSTRIAL SCHOOL.		STATE PRISON.	
	Quan.	Price.	Quan.	Price.	Quan.	Price.	Quan.	Price.	Quan.	Price.	Quan.	Price.
Family flour, cwt.....	32	\$3 80	65½	\$3 47	1,120½	\$3 82	1,884	\$3 25	1,650	\$3 25	34½	\$4 00†
Graham flour, cwt.....	2½	3 70	4	3 86	26	2 98	13	3 03	4½	2 50	10	3 00
Crackers, lbs.....	363	07	1,390	07	960	10	090	06	25 bbls.	2 60	.....	.....
Butter, lbs.....	2,754	20	6,808	19½	17,922	19	82,229	20	6,010	20½	11,285	18½
Bread, lbs.....	16,693	03½	48,808	03½	.....	.....	.....	.....	.....	.....	.....	.....
Fresh beef, lbs.....	13,488	07	14,007	07½	185,370	04½	304,118	04½	.....	.....	.....	.....
Pork and sausage, lbs.....	409	11	913	09½	185,370	04½	304,118	04½	8,981	07½	170,030	05½
Fish, lbs.....	229	07½	1,440	08½	11,280	09	163	14	8,392	10½	333	10
Oysters, cans.....	23	32½	100	31½	112	49 19	37	42½	1,360	06½	419	08½
Poultry, lbs.....	185	12½	1,106	09½	*	508 34	1,306	41	181	34	.....	.....
Tea, lbs.....	159	51	224	60	1,140	851 82	2,916	11½	697	09½	1,425	09½
Coffee, lbs.....	363	27½	914	20½	*	851 82	5,775	23	191	60½	1,208	47
Sugar, lbs.....	4,450	11½	8,819	10½	21,082	41½	40,854	11½	771	31½	1,184	21½
Coal (soft), tons.....	2½	5 75	.....	.....	{ 2,040½	5 50	2,917	5 78	8,811	11½	4,110	12½
Anthracite, tons.....	225	6 63	259	8 37	{ 494	4 83	chopping	7 00	.....	.....	10½	6 80
Wood, cords.....	60	4 49	38	3 90	.....	.....	.....	65 25	477	4 97	1,427	3 33

* The gross amount paid for this article is all that appears concerning it in the itemized report of the hospital.
† 2,967 bushels of wheat were also bought for the prison, at \$1.30 ½ per bushel.

The estimates of the several institutions for the ensuing year were carefully revised by this board before their publication, (with one exception,) and the changes and reductions suggested by us, were in all cases assented to by the board of trustees and managers, so that we are prepared to recommend the appropriations asked for, as based upon considerations of necessity and economy. And we wish in this place to make a general acknowledgment of the courtesy shown us by the boards of trustees, and other officers of the institutions, accompanied, as it has been, by an evidently sincere desire to afford us all the information attainable.

The following are the estimates of the various institutions for the ensuing year, as revised and approved by the State Board of Charities and Reform.

Institution for the Blind.

The estimates for the current expenses of the institution for the ensuing year are as follows:

Apparatus and means of instruction.....	\$796 00
Clothing for pupils, not repaid.....	100 00
Executive expenses.....	530 00
Farm and barn expenses.....	655 00
Fuel, coal and wood.....	2,225 00
House furnishing.....	455 00
Laundry and cleanliness.....	320 00
Lights.....	395 00
Medical attendance and medicines.....	175 00
Repairs and tools.....	350 00
Salaries and wages.....	6,763 00
Subsistence.....	4,650 00
Work departments.....	245 00
Miscellaneous.....	341 00
Improvement of grounds.....	500 00
Total.....	<u>\$18,500 00</u>

Deaf and Dumb Institute.

Means of instruction and amusement.....	\$500 00
Clothing and expenses of indigent pupils.....	600 00
Drugs and medicines.....	75 00
Farm and barn.....	500 00
Fuel.....	2,100 00
House furnishing.....	1,000 00
Laundry.....	200 00
Lights.....	500 00
Live stock.....	200 00
Manufacturing.....	800 00
Managers and trustees.....	400 00
Miscellaneous.....	725 00
Repairs, ordinary.....	1,000 00

Subsistence.....	\$8,000 00
Salaries and wages.....	15,000 00
Library.....	100 00
Printing stock.....	300 00
Total.....	<u>\$30,000 00</u>

State Hospital for the Insane.

To meet current expenses from January 1 to March 1, 1878.	\$16,466 67
To meet current expenses for the year following.....	88,920 00
For new gas works.....	8,000 00
For modification of water closets, bath and clothes rooms.....	2,000 00
For material for furniture.....	1,000 00
For completion of new roofing of wings.....	1,500 00
For extension of water pipes.....	2,000 00
For hose and fire apparatus.....	2,000 00
For addition to barn and stable.....	1,000 00
For purchase of cows.....	1,200 00
For medical library and apparatus.....	500 00
For new floors.....	1,200 00
Total.....	<u>\$125,786 67</u>
Deduct amount that will be received from counties.....	35,003 73
Amount to be appropriated.....	<u>\$90,782 94</u>

Northern Hospital for the Insane.

Money on hand.....	\$64,554 05
Money in state treasury.....	16,105 00
Total.....	<u>\$80,659 05</u>

There will be required for the support of 550 patients, from September 30, 1877, till March 1, 1878, 21½ weeks, at \$4.50 per week.....	\$53,389 00
There will be required to pay for work and material under contract, and for additional work and material ordered, and to carry out the purposes for which special appropriations were made, and to pay other indebtedness.....	27,024 00
Balance on hand March 1, 1878.....	246 05
Total.....	<u>\$80,659 05</u>

There will be required for the support of 550 patients for one year, commencing March 1, 1878, and ending March 1, 1879, at \$4.50 per week.....	\$129,054 00
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Balance on hand March 1, 1878.....	\$246 05
Due from counties.....	48,927 90
Will be received from steward.....	3,000 00
Balance to be appropriated for current expenses.....	76,880 05

Total.....	<u>\$129,054 00</u>
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For pipes to conduct water for fire purposes under north wing.....	\$600 00
For enlarging gas holder.....	1,500 00
For farm.....	1,500 00
For radiators under center building.....	1,500 00

Total appropriations required for above purposes.....	<u>\$81,980 00</u>
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State Industrial School for Boys.

1	Amusements and means of instruction	\$900 00
2	Clothing, tailor shop and shoes	4,600 00
3	Drugs, medicines and medical services.....	600 00
4	Farm and barn expenses.....	3,800 00
5	Fuel.....	3,400 00
6	Lights	600 00
7	House furnishing	1,600 00
8	Laundry and cleanliness	500 00
9	Stone yard and stone	1,250 00
10	Ordinary repairs	800 00
11	Permanent improvements	1,000 00
12	Miscellaneous expenses	629 50
13	Subsistence	12,000 00
14	Salaries	14,750 00
15	Wages.....	1,400 00
16	Telegraph, \$90, and express \$75	165 00
17	Postage.....	250 00
18	Printing.....	50 00
19	Freight	600 00
20	Manager's expenses.....	550 00
21	Library	250 00
	Total.....	<u>\$49,194 50</u>
	Deduct due from counties	<u>10,194 50</u>
	Leaving amount to be appropriated.....	<u><u>\$39,000 00</u></u>

The State Prison.

No appropriation from the legislature will be needed to meet the current expenses of the State Prison for next year. The Warden estimates the expenses on the basis of an average number of 300 convicts as follows:

For means of instruction in prison school.....	\$30 00
Addition to the library.....	200 00
Newspapers	60 00
Printing.....	80 00
Stationery	30 00
Drugs and medicines.....	300 00
Forage	375 00
Fuel	4,250 00
Lights.....	600 00

For laundry	40 0
House and cell room furnishing	650 00
Traveling expenses	350 00
Telegraph	35 00
Express	75 00
Tobacco	875 00
Salaries and wages.....	17,000 00
Clothing	2,000 00
Shoe shop	800 00
Subsistence.. ..	19,500 00
Convicts discharged.....	800 00
Freight.....	250 00
Postage.....	300 00
Directors' expenses.....	1,000 00
General repairs	1,000 00
Total.....	<u>\$50,050 00</u>
To meet the above we have a balance due on state appropriation,	\$6,000 00
Estimated earnings of labor leased to M. D. Wells & Co., from	
January 1, 1878 to October 1, 1878	<u>18,000 00</u>

He adds: "I estimate, that with the above amounts, the collections on outstanding indebtedness and from sales of goods and material during the year, will be sufficient to pay all deficiencies, and the existing indebtedness of \$6,412.75. The excess of outstanding indebtedness over liabilities and the manufactured goods on hand, represent in part the earnings of the past three years. With reasonable success in making sales and collections, no appropriation will be required for the year ending October 1, 1878, and it is probable that none will be required for the year ending October 1, 1879."

TABLE Showing the annual expenditures of the state institutions for the year ending September 30, 1877, as compiled from their itemized reports to this board.

	Institution for Blind.	Deaf and Dumb Inst.	State Hos- pital.	Northern Hospital.	State Pris- on.	State Ind'l School.
Daily average of prisoners, patients or scholars.....	67	155	370.5	542.5	290	341
Amusement and instruction	\$491 03	\$492 58	\$963 82	\$943 71	\$21 95	\$898 75
Clothing and tailorshop	131 73	541 57	5,810 51	4,768 10	3,265 01	4,141 97
Drugs and medicines	233 83	73 40	1,106 33	1,837 76	244 81	533 25
Farm and barn	663 82	717 19	2,994 81	1,809 75	634 40	2,923 09
Fuel	1,776 14	2,350 04	13,853 36	14,221 31	6,275 99	3,048 33
House furnishing.....	692 87	1,426 51	5,277 03	9,882 15	647 97	1,473 17
Live stock	268 00	92 00	.....	764 00	.....	.....
Laundry and cleanliness.....	259 74	232 91	465 01	.....	69 77	408 01
Lights	497 99	533 06	2,880 18	120 83	781 04	567 49
Liquors .....	.....	.....	.....	1,653 13	.....	.....
Manufacturing expenses	153 78	782 87	.....	.....	33,782 18	2,507 06
Miscellaneous expenses	676 35	667 14	2,433 18	3,378 64	425 10	588 50
Permanent improvements.....	710 14	3,593 65	{ 4,180 91	4,988 05	5,872 49	899 34
Ordinary repairs.....	409 92	998 09	.....	5,862 53	.....	672 89
Subsistence.....	3,952 32	8,114 25	24,610 54	39,028 27	19,435 85	10,810 88
Salaries and wages.....	6,017 82	13,962 29	28,638 53	32,266 29	18,918 80	15,429 04
Shoe shop.....	.....	.....	.....	.....	632 21	.....
Managers' and Trustees' expenses.....	365 22	502 35	1,549 67	1,084 55	656 75	551 50
Express, freight, telegraphy and postage.....	.....	.....	.....	.....	8,105 22	928 84
Printing, stationery, and newspapers.....	.....	.....	.....	.....	402 60	.....
Agents, interest and exchange.....	.....	.....	.....	.....	6,345 56	.....
Tobacco.....	.....	.....	.....	.....	328 24	.....
To discharged convicts.....	.....	.....	.....	.....	757 00	.....
Convicts' deposits.....	.....	.....	.....	.....	164 75	.....
Total.....	\$17,300 69	\$35,019 90	\$94,753 87	\$122,559 12	\$101,582 54	\$46,321 31

APPROPRIATIONS FOR 1878.

In the following table will be found the appropriations recommended by this board for the ensuing year, in gross:

NAME OF INSTITUTION.	For current expenses.	For special purposes.	Whole amount asked to be appropriated by next legislature.
Institution for the Blind.....	\$17,545	\$955	\$18,500
Institute for Deaf and Dumb.....	29,700	300	30,000
State Hospital for the Insane*.....	70,383	20,400	90,783
Northern Hospital for the Insane.....	76,890	5,100	81,990
State Industrial School for Boys.....	38,600	1,000	39,000
Total.....	\$232,508	\$27,755	\$260,263

* For fourteen months.

Wisconsin Institution for the Education of the Blind.

(Located at Janesville.)

The Board of Trustees of the institution is as follows:

Terms expire April 3, 1878 — J. B. Whiting, M. D., Janesville;
Wm. Macloon, Janesville.

Terms expire April 3, 1879 — E. Bowen, Brodhead; Cyrus Miner, Janesville.

Term expires April 3, 1880 — B. R. Hinkley, Summit, Waukesha county.

OFFICERS OF THE BOARD.

President — Wm. Macloon.

Treasurer — C. Miner.

Secretary — J. B. Whiting, M. D.

OFFICERS OF THE INSTITUTION.

Superintendent — Mrs. Sarah F. C. Little, A. M.

Teachers — Misses S. A. Watson, A. I. Hobart, Helen F. Blinn.

Teachers of Music — John S. Van Cleve, Miss M. L. Blinn.

Matron — Mrs. Maria H. Whiting.

Foreman of Shop — William B. Harvey.

GENERAL STATISTICS.

The following table shows the cost of construction, current expenditures, total cost to the state, and the average number of pupils of the institution from the beginning, \$150,000 of the total cost of construction having been used to replace the main buildings destroyed by fire in 1874:

Year.	Cost of construction.	Cost of current expenses.	Total cost to the State.	Whole No. of pupils.	Average No.	Yearly cost per pupil.
1850 } 1851 } ...	\$3,000 00	\$3,368 62	\$6,368 62	17	.....	.....
1852	2,500 00	2,000 00	4,500 00	9	.....	.....
1853 ....	.....	2,500 00	2,500 00	13	.....	.....
1854	12,000 00	3,500 00	15,500 00	16	.....	.....
1855	5,000 00	4,000 00	9,000 00	14	.....	.....
1856	10,000 00	5,000 00	15,000 00	19	.....	.....
1857	15,000 00	7,000 00	22,000 00	20	.....	.....
1858	7,530 79	5,000 00	12,530 79	23	.....	.....
1859	6,575 00	9,000 00	15,575 00	27	.....	.....
1860	3,700 00	9,000 00	12,700 00	34	.....	.....
1861	1,000 00	9,000 00	10,000 00	42	.....	.....
1862 ....	.....	8,800 00	8,800 00	50	.....	.....
1863	2,000 00	12,000 00	14,000 00	54	.....	.....
1864	5,000 00	15,000 00	20,000 00	59	.....	.....
1865	6,500 00	19,500 00	26,000 00	58	.....	.....
1866 ....	.....	16,000 00	16,000 00	54	.....	.....
1867	1,000 00	16,000 00	17,000 00	54	.....	.....
1868	60,000 00	18,000 00	78,000 00	60	.....	.....
1869	500 00	18,000 00	18,500 00	69	.....	.....
1870	29,800 00	18,000 00	47,800 00	64	.....	.....
1871 ....	.....	21,798 00	21,798 00	63	51	\$427 41
1872	1,400 00	23,825 50	25,225 50	76	57	417 99
1878	3,375 00	15,500 00	20,875 00	77	56	276 78
1874	3,800 00	19,375 00	23,175 00	75	60	322 92
1875	61,000 00	24,878 00	85,878 00	82	59	421 66
1876	35,000 00	20,000 00	55,000 00	86	60	333 33
1877	57,500 00	20,250 00	77,750 00	91	67	302 24
Total .	\$335,180 79	\$346,295 12	\$681,475 91	.....	59*	357 48*

* Average since 1870.

The foregoing table is compiled from the annual reports of the state treasurer, and represents the amounts drawn from the treasury for the fiscal years named. The receipts of the institution for the year ending September 30, 1877, from all sources, as reported to this board, are:

On hand October 1, 1876	\$2,582 23
Appropriation of 1876 ($\frac{1}{2}$)	6,000 00
Appropriation of 1877 ($\frac{3}{4}$)	12,750 00
Sale of horse	100 00
Sale of hogs	70 15
Sale of cow	30 00
Girls' work department ..	52 75
Clothing of pupils	120 14
Sale of books and apparatus ..	23 80
Sundries	23 37
Total	<u>\$21,702 44</u>

The annual reports of the trustees and superintendent show that the number of pupils is steadily increasing. In mentioning the new main building which has been completed during the past year, the trustees say that "the work has been well done, and that, in point of substantiality, it is believed to be the best public building in the state. No effort has been spared, in so far as the money placed at our disposal would allow, to make the building fire-proof." We, also, take pleasure in commending the work for its substantial character. The architect and contractors have been faithful, and have furnished one of the best of our state buildings. Its fire-proof character renders it safe for the class of inmates whom it is designed to accommodate, and the wants of the state in this direction will be supplied by it for many years. The superintendent reports a new and profitable feature in the musical education of the pupils, through a series of lectures on various themes pertaining to the general subject of music, given by Mr. Van Cleve.

"In the industrial department, the manufacture of corn brooms has been continued. The value of this work consists not only in the knowledge of how to make brooms, but also in the skill acquired in the use of tools, and the habit of industry. Cane-seating has been taught to both boys and girls. Weaving of rag-carpet has been found to afford a comfortable support to blind persons in

some sections of the state, even in the present hard times. A loom has this fall been purchased, in order that this branch of industry may be taught to those of our pupils whose circumstances render it probable that this may be a profitable occupation for them.

"Our girls learn to sew, knit, crochet, and do various other kinds of work which may render them helpful members of a family circle. It is our design to introduce every new industry which seems likely to afford our scholars profitable employment, or such manual dexterity as will enable them to do well whatever their hands find to do. With this in view, we expect soon to introduce the knitting machine. We know it is practicable for blind girls to learn to use this skillfully, for it has been done with eminent success in the New York City Institution for the Blind."

In relation to the expenses of the institution she says:

"It is impossible that a work requiring so great a variety of processes, done for so dependent a class of persons, should not involve a large expenditure of labor and money, even when the utmost economy is exercised. But we should endeavor not to lose sight of the radical distinction between a true economy and a parsimony which will defeat the object for which we labor. More teachers are required than for the same number of pupils in an ordinary school. We aim to give our scholars a substantial English education, believing this a fundamental requisite for accomplishing the purpose for which the institution was established. The great variety in age, attainments and ability gives us, with our comparatively small number of scholars, about all the grades found in our common schools, from the lowest primary to the upper high school classes. Instruction in nearly all these classes must be given orally; hence, the time devoted to each class must be sufficient, not only for recitation, but also for learning a new lesson. This must be the case until text books can be furnished cheaply enough to warrant the expense of supplying each pupil with a book, as is the case in schools for seeing children. Until this can be done, learning the lesson from the lips of a skilled teacher must be preferred to any other method. The necessity for guiding each hand over maps and other apparatus renders it impossible to teach large classes, except in a few branches.

"Dr. Samuel G. Howe, of Massachusetts, better known to the pub-

lic than any other educator of the blind, in the report written but a short time before his death, after more than forty years of experience in this work, says: 'In order to do justice to all, our classes are necessarily small, and the number of teachers large. This, of course, increases the cost of instruction; but cheapness is no more applicable in equipping an educational establishment, than in officering and fitting up an army. Indeed, of all kinds of poor economy, that which will admit the packing of a large number of pupils, of different ages and mental capacity, into one large division, for the sake of saving the salary of an additional teacher, is the poorest.' It would be impossible for us to make a suitable classification with our present number of teachers, but for the assistance rendered by several of our older pupils. This term, five classes are taught in this way."

The musical department is mentioned as a source of expense which the state is not called upon to meet in any other public educational institution, and one which is especially necessary here since music is the one profession in which the blind may hope to compete successfully with others.

The average attendance for the year ending September 30, 1877, was 67. The current expenses, for the same time, were \$17,300.70, as reported by the board of trustees. This makes the annual per capita cost of support of the inmates, \$258.72, or a weekly cost of \$5.45, for the school year of 40 weeks. Many of the expenses of the institution continue during the vacation, however, and the latter are included in the whole amount named above.

The average yearly cost of subsistence for the five years ending with 1875, was \$4,319.16, making the average per capita for the pupils \$77.58 yearly, and the weekly per capita (at forty weeks to the year), \$1.94. For 1876, the figures on the same items were \$4,221.59, \$70.36, and \$1.76, respectively. For 1877, they have been \$3,952.33, \$58.99, and \$1.47. When it is understood that the subsistence account includes that of the officers during the whole year, it will be granted that a due regard for economy is shown on this point.

The following table will show the average quantities of different articles of subsistence purchased yearly from 1871 to 1875, inclusive, the average prices paid for such articles, the quantities pur-

chased in 1876 and in 1877, and the average prices paid during these years:

Year.	Average supply of—	Quantity.	Price.
1871-75	Butter, lbs.....	2,846	.216
1876	...do	3,124	.232
1877	...do	2,754	.20
1871-75	Eggs, doz	786	.147
1876	...do		
1877	...do	550	.181
1871-75	Coffee, lbs	458	.234
1876	...do	522	.24
1877	...do	363	.277
1871-75	Tea, lbs.....	146	.73
1876	...do	97	.64
1877	...do	159	.51
1871-75	Sugar, lbs.....	3,711	.117
1876	...do	4,616	.106
1877	...do	4,450	.111
1871-75	Meats (except poultry), lbs.....	14,042	.079
1876	...do	15,131	.076
1877	...do	15,712	.074
1871-75	Beef (included above), lbs.....	11,959	.074
1876	...do	12,773	.073
1877	...do	13,673	.07
1871-75	Poultry, lbs.....	542	.105
1876	...do	251	.107
1877	...do	185	.123
1871-75	Fish, lbs.....	530	.074
1876	...do	330	.073
1877	...do	229	.075

The average yearly cost of breadstuffs for the five years beginning with 1871, was \$710.88. For 1876, it was \$850.64, and for 1877, \$814.44. For fruit, the average cost during the five years was \$269.34. For 1876, it was \$251.34, and for 1877, \$173.16.

The average for fuel for the five years was \$3,184.77, for 1876, \$2,931.43, and for 1877, \$1,776.14. Lights cost on the average for the five years \$271.47, for 1876, \$296.55, and for 1877, \$497.99. Salaries and wages, which averaged a yearly aggregate of \$6,305.65 during the preceding five years, amounted to \$5,978.53 in 1876, and \$6,017.82 in 1877. The increased cost of the last two items does not appear excessive when the greater size of the present building and the increased number of pupils are taken into consideration.

Wisconsin Institute for the Education of the Deaf and Dumb.

(Located at Delavan.)

The board of trustees of the institute is constituted as follows:

Terms expire April, 1878. — Joseph Hamilton, Milwaukee, Milwaukee county. D. G. Cheever, Clinton, Rock county.

Terms expire April, 1879. — Aaron L. Chapin, Beloit, Rock county. S. Rese La Bar, Delavan, Walworth county.

Term expires April, 1880. — Hollis Latham, Elkhorn, Walworth county.

OFFICERS OF THE BOARD.

President — A. I. Chapin.

Secretary — S. Rese La Bar.

Treasurer — Hollis Latham.

Executive Committee — S. Rese La Bar, D. G. Cheever.

OFFICERS OF THE INSTITUTE.

Principal — William H. De Motte, A. M., L.L. D.

Teachers — George F. Schilling, A. M., William A. Cochrane, A. M., Z. G. McCoy, Hiram Phillips, Emily Eddy, Mary E. Smith, Eleanor McCoy, Imogen L. Tilden, Cora E. Carver, Isabella Kimball.

Steward — A. J. Woodbury.

Matron — Mrs. A. Broadrup.

Physician — J. B. Heminway, M. D.

TABLE showing cost of construction, current expenses, number of pupils, and annual cost to the State by appropriation, of this Institution from its foundation.

YEAR.	Cost of construction.	Cost of current expenses.	Total cost.	Number of pupils.	Average number.
1852	\$3,000 00	\$500 00	\$3,500 00	8	.....
1853	5,000 00	4,000 00	9,000 00	14	.....
1854 .....	.....	7,500 00	7,500 00	31	.....
1855	500 00	7,000 00	7,500 00	34	.....
1856	300 00	7,000 00	7,300 00	49	.....
1857	22,500 00	12,000 00	34,500 00	56	.....
1858	6,500 00	9,000 00	15,500 00	52	.....
1859	4,500 00	15,100 00	19,600 00	79	.....
1860	15,900 00	13,550 00	29,450 00	87	.....
1861 .....	.....	14,000 00	14,000 00	86	.....
1862 .....	.....	12,200 00	12,200 00	83	.....
1863 .....	.....	13,250 00	13,250 00	89	.....
1864 .....	.....	15,550 00	15,550 00	80	.....
1865	22,000 00	19,000 00	41,000 00	91	.....
1866	18,901 35	27,684 48	41,585 83	104	.....
1867	8,000 00	27,000 00	35,000 00	108	.....
1868 .....	.....	27,000 00	27,000 00	95	.....
1869	3,000 00	30,000 00	33,000 00	112	.....
1870	4,176 00	30,000 00	34,176 00	144	.....
1871 .....	.....	26,932 00	26,932 00	149	127
1872 .....	.....	39,893 75	39,893 75	164	137
1873 .....	.....	23,737 25	23,737 25	176	141
1874 .....	.....	40,500 00	40,500 00	176	146
1875	1,500 00	34,625 00	36,125 00	181	132
1876	6,500 00	28,166 64	34,666 64	191	145
1877	4,500 00	37,583 36	42,083 36	183	155
Total	\$121,777 35	\$522,772 48	\$644,549 83	.....	140.5*

* Average since 1870.

The receipts of the institution from all sources during the year ending September 30, 1877, are returned as follows;

On hand October 1, 1876	\$14,308 04
Appropriation of 1877, current expenses	31,500 00
Appropriation of 1877, permanent improvements	4,500 00
Receipts from miscellaneous sources	753 28
Total	\$51,061 32

Of this amount there has been expended \$35,019.90, leaving a balance on hand October 1, 1877, of \$16,041.42 to meet current expenses until the next annual appropriation is made by the legislature.

The whole number of pupils in attendance during the past year was 182; males 113, females 69.

The number present October 1, 1877, was 141, of whom 87 were males.

The average number of pupils daily for the five years ending with 1875 was 136, for 1876 was 145, and for 1877, 155.

The yearly average of current expenses for the five years ending with 1875 was \$34,922.77. For 1876, the current expenses (report of institute) were \$35,332 14, and for 1877, \$35,019.90.

The average yearly cost of subsistence from 1871 to 1875, inclusive was \$7,860.11, in 1876, the cost was \$8,641.96, and in 1877, \$8,114.25. The average per capita cost yearly for the five years was \$57.50. The per capita cost for 1876 was \$59.59 and for 1877, \$52.35.

The pupils at this institution, like those at the institution for the blind, are present only 40 weeks during each year, and many of the officers, as in the case of the latter, remain during the vacation in care of the building and grounds. For this reason it is impossible in either of these cases to obtain the weekly per capita of subsistence with any great degree of accuracy.

The average yearly cost per pupil for all expenditures for the five years ending with 1875 was \$254.19 or \$6.35 per week. For 1876 the cost (exclusive of permanent improvements), was \$243.67 or \$6.10 weekly, and for 1877 it was \$225.88 or \$5.65 weekly.

TABLE showing the average quantities of different articles of subsistence purchased yearly from 1871 to 1875 inclusive, the average prices paid for such articles, and the quantities and average prices in 1876 and in 1877.

YEARS.	Average supply of—	Quantity.	Prices.
1871-1875	Fresh beef, lbs.	14,101	.086
1876	do.	15,811½	.07
1877	do.	14,007	.076
1871-1875	Salt beef, lbs.	6,982	.084
1876	do.	5,811	.06
1877	do.	5,862	.045
1871-1875	Mutton, lbs.	344	.084
1876	do.	352	.08
1877	do.	385	.06
1871-1875	Fresh pork, lbs.	279	.088
1876	do.	356	.10
1877	do.	274	.09
1871-1875	Salt pork, lbs.	728	.092
1876	do.	803	.10
1877	do.	526	.094
1871-1875	Veal, lbs.	539	.08
1876	do.	387½	.07
1877	do.	194	.06
1871-1875	Sausage, lbs.	413	.098
1876	do.	106	.10
1877	do.	88	.10
1871-1875	Poultry, lbs.	1,215	.094
1876	do.	1,405	.101
1877	do.	1,135	.09
1871-1875	Butter, lbs.	4,931	.227
1876	do.	7,187	.22
1877	do.	6,868	.191
1871-1875	Eggs, doz.	1,425	.135
1876	do.	1,963	.13
1877	do.	2,327	.14
1871-1875	Sugar, lbs.	8,312	.109
1876	do.	10,503	.101
1877	do.	8,819	.108
1871-1875	Coffee, lbs.	1,344	.276
1876	do.	897	.27
1877	do.	914	.263
1871-1875	Tea, lbs.	110	.95
1876	do.	66	.68
1877	do.	224	.60
1871-1875	Potatoes, bus.	520	.547
1876	do.	551	.45
1877	do.	336	.26
1871-1875	Wood, cords.	106	4.80
1876	do.	100	4.00
1877	do.	38	3.90
1871-1875	Coal, tons.	237	9.74
1876	do.	298½	8.68
1877	do.	259	8.16

The average yearly cost of breadstuffs, from 1871 to 1875, inclusive, was \$1,370.49; in 1876 the cost was \$1,586.08, and in 1877 it was \$2,003.65.

The average yearly expenditure of the Institute for salaries and wages, during the five years above named, was \$14,562.51; in 1876 the expenditure for that purpose was \$15,831.02, and in 1877, \$13,962.29.

BUILDING AND REPAIRS.

"By rigid economy the expenditures have been kept within the limits of the appropriations made by the legislature. The amount specifically named for the purchase of apparatus for the laundry has proved sufficient for the purpose, and has been judiciously expended. There have been introduced, one Standard Washer, one Weston Wringer, and one Baldwin Mangle, together with a small engine of eight horse power, and the necessary gearing to run them. These articles embrace the latest improvements in such apparatus, and with the drying room properly fitted up, make the laundry complete in all its appointments. The building, with its outfit will, it is believed, compare favorably with any like establishment in the state, for economy in erection and furnishing, the excellence of all its fixtures, and the ease and efficiency with which the washing for so large a household can now be done. It is a great relief to have that unpleasant work entirely withdrawn from the main edifice. The space thus vacated will be available for other advantageous purposes.

"The repairs for the past year have been more extensive than ordinary, and were to a considerable extent of the nature of permanent improvements. The partition wall between the dining room and the former kitchen was removed, and the superstructure supported by an iron girder resting on substantial iron pillars. The dining room was thus made sixty feet square, with improved provisions for light and ventilation. The boilers of the heating apparatus was thoroughly cleaned, refueled and reset; a steam drum was added and larger main pipes put in. These changes are confidently expected to favor both economy of fuel and increased comfort. Water closets and bath rooms in the east wing will soon be completed. The expenditures for these purposes have been kept within the amounts appropriated for repairs."

It is the opinion of this board that the improvements above mentioned are worthy the commendation given them by the board of trustees.

The superintendent reports that the 182 pupils registered at the institution were arranged in nine grades, each under the care of a teacher, while a tenth teacher gave instruction wholly by articulation to seven pupils, and in the practice of articulation for a portion of each day to twenty others, all semi-mutes, with whom it was deemed possible to keep and improve the ability to speak.

The following table shows the counties of the state from which the pupils came:

<i>County.</i>	<i>Pupils.</i>	<i>County.</i>	<i>Pupils.</i>	<i>County.</i>	<i>Pupils.</i>
Adams	1	Iowa	2	Portage	4
Brown	8	Jackson	1	Racine	5
Buffalo	1	Jefferson	10	Richland	2
Calumet	2	Juneau	1	Rock	4
Chippewa	2	Kenosha	5	St. Croix	1
Clark	2	La Fayette	3	Sauk	3
Columbia	10	Manitowoc	6	Shawano	2
Dane	9	Marathon	3	Sheboygan	4
Dodge	6	Marquette	2	Trempealeau	1
Door	3	Milwaukee	18	Vernon	3
Dunn	1	Monroe	3	Walworth	8
Eau Claire	2	Oconto	1	Washington	2
Fond du Lac	5	Outagamie	1	Waukesha	7
Grant	5	Ozaukee	1	Waupaca	4
Green	1	Pepin	1	Waushara	5
Green Lake	2	Pierce	3	Winnebago	6
Total					182

"From this," the superintendent says, "it appears that there are ten counties containing a population of fifty thousand, from which there were during the year no pupils. It cannot be reasonably supposed that there are no children of suitable age and condition for admission within these counties; nor that there are but two or three in many other large and populous counties.

"According to the general statistical tables, the whole number of deaf within the state would be about six hundred, the ratio being about one in every two thousand of population. Probably one-half of these are within the limits of school age — ten or twenty years. Allowing to each the full term prescribed by law, we ought to have at least two hundred and fifty pupils in the institute. But as some do not ask, others would not be benefited by, and still others, having received some education before becoming deaf, do not need so

long a term, we judge that of the whole number in the state, there ought to be in school to-day two hundred pupils."

During the year there were employed in the cabinet shop twelve boys; in the shoe shop, fifteen; in the basket shop twelve; and the remainder about the building and grounds, in work which would otherwise have cost the wages of hired men.

All the girls have received daily instruction in plain and ornamental needle work, and performed the chamber and dining room work for themselves and the boys. They have also assisted, as far as practicable, in the laundry. This work, from its character and variety, cannot be accurately estimated in dollars and cents, and yet it has caused a material saving in expense of hired help, and taught them important lessons in domestic work. During the past year, the amount of housework done by the pupils has been very considerably increased.

Type setting is to be introduced as a regular employment in the institution during the coming year, and is an industry well suited to the capabilities of mutes.

Of the general health of the inmates, Dr. Heminway reports: "During the year ending September 30, 1877, there has been more sickness among the pupils than the year previous, but mostly of a mild order, and yielding readily to mild remedial measures and good care. There have been three cases of pneumonia, and several cases of acute bronchitis, one of accident, two of fracture of fore-arm, and two dislocations, with other slight accidents, comprise the list. A perfect recovery in all cases is largely attributable to more than ordinary care, hygienic and dietetic rules and regulations.

HOSPITALS FOR THE INSANE.

As the two hospitals for the insane are conducted on the same general principles, and as many of their statistics are most conveniently studied in a consolidated form, they are here placed under the same general heading. The

Wisconsin State Hospital for the Insane

Is situated at Mendota, near Madison, and its trustees and officers are as follows:

BOARD OF TRUSTEES.

Term expires April, 1878—H. N. Davis, Beloit, Rock county.

Term expires April, 1879—R. E. Davis, Middleton, Dane county.

Term expires April, 1880—Andrew Proudfit, Madison, Dane county.

Term expires April, 1881—David Atwood, Madison, Dane county.

Term expires April, 1882—John A. Johnson, Madison, Dane county.

The officers of the board are:

President—David Atwood.

Vice President—R. E. Davis.

Treasurer—Andrew Proudfit.

Secretary—Levi Alden.

The resident officers are:

Superintendent — D. F. Boughton, M. D.

First Assistant Physician — Clark Gapen, M. D.

Second Assistant Physician — J. N. De Hart, M. D.

Matron — Mrs. M. C. Halliday.

Steward — S. E. McDill.

The Northern Hospital for the Insane

Is situated at Winnebago, near the city of Oshkosh, and has the following

BOARD OF TRUSTEES.

Term expires November, 1877 — N. A. Gray, M. D., Milwaukee.

Term Expires November, 1878 — Thos. D. Grimmer, Oshkosh.

Term expires November, 1879 — D. W. Maxon, Cedar Creek.

Term expires November, 1880 — Peter Rupp, Fond du Lac.

Term expires November, 1881 — W. P. Rounds, Menasha.

The officers of the board are:

President — D. W. Maxon.

Secretary — N. A. Gray, M. D.

Treasurer — Thos. D. Grimmer.

The resident officers are:

Superintendent — Walter Kempster, M. D.

First Assistant Physician — Wm. H. Hancker, M. D.

Second Assistant Physician — John W. Goe, M. D.

Third Assistant Physician — John R. Thompson, M. D.

Matron — Mrs. L. A. Butler.

Steward — Joseph Butler.

The following tables show the cost of construction, cost of current expenses, total cost to the state, the aggregate and average number of patients, and the average annual cost per patient at each of the hospitals from the beginning, on the basis of the reports of disbursements by the state treasurer:

TABLE showing cost at the State Hospital.

YEAR.	Cost of construction.	Cost of current expenses.	Total cost to the state.	Whole No. of patients.	Average number.	Yearly cost per patient.
1856. }	\$224,925 33	\$3,875 89	\$228,801 23	45	7	.....
1860. }						
1861...	20,724 24	21,602 18	42,326 42	147	90	\$240 03
1862...	28,645 06	22,038 49	50,683 55	192	117	190 90
1863...	7,074 54	81,716 86	88,790 90	254	162	195 75
1864...	8,351 25	85,311 12	88,662 37	300	187	188 83
1865...	4,548 26	47,309 78	51,658 04	257	179	264 90
1866...	2,091 20	40,495 60	42,586 80	273	181	223 73
1867...	80,112 00	44,118 87	124,230 87	294	185	236 28
1868...	65,241 97	46,818 00	112,079 97	355	203	230 62
1869...	35,857 63	71,320 08	107,177 71	455	310	230 06
1870...	15,861 52	80,518 37	95,879 89	532	362	223 66
1871...	18,043 26	76,890 61	94,933 87	524	359	214 17
1872...	19,105 22	86,770 56	105,975 78	531	365	237 43
1873...	31,875 00	87,563 15	119,438 15	585	329	266 15
1874...	10,000 00	86,567 08	96,567 08	457	337	250 94
1875...	84,000 00	92,554 76	126,554 76	507	364	254 26
1876...	14,494 43	107,289 61	121,784 04	557	334	321 22
1877...	11,500 00	117,869 64	128,869 64	498	370.5	322 18
Total.	\$626,771 91	\$1,100,130 15	\$1,726,902 06	.....	.....	.....

TABLE showing cost at the Northern Hospital.

YEAR.	Cost of construction	Cost of rent & expenses.	Total cost to the state by legislative appropriation.	Whole number patients.	Average number.	Yearly cost per patient.
1870...	\$3,061 46	.....	\$3,061 46	.....	.....	.....
1871...	65,119 78	.....	65,119 78	.....	.....	.....
1872...	173,891 55	.....	173,891 55	.....	.....	.....
1873...	164,927 21	\$33,750 00	198,677 21	214	.....	.....
1874...	65,712 63	62,551 34	128,263 97	306	232½	\$335 02
1875...	123,958 43	86,623 73	210,582 16	851	257½	836 14
1876...	39,861 79	106,945 97	146,807 76	604	399½	267 45
1877...	16,500 00	132,174 17	148,674 17	704	542½	243 42
Total.	\$653,032 85	\$422,045 21	\$1,075,078 06	.....	.....	.....

TABLE of General Statistics from opening of each Hospital.

ADMISSIONS AND DISCHARGES.	STATE HOSPITAL.			NORTHERN HOSPITAL.			BOTH HOSPITALS.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
Total number of admissions	1,287	1,208	2,493	472	473	945	1,759	1,679	3,428
Discharged recovered.....	868	848	716	53	55	108	421	403	824
Discharged improved	293	236	529	50	52	102	343	288	631
Discharged unimproved.....	270	276	546	45	32	77	315	308	623
Died.....	171	145	316	57	61	118	228	206	434
Not insane	1	.....	1	1	3	4	2	3	5
Total number of discharges.....	1,103	1,005	2,108	206	203	409	1,309	1,208	2,517

NOTE. — The Northern Hospital having been opened May 11, 1873, received patients from the State Hospital by transfer for the three years following. The number so transferred, amounting in all to 97 males and 106 females (total, 203), are of course counted twice in the above table, once among those discharged from the State Hospital and once among those received at the Northern.

TABLE showing civil condition of those received during the year.

CONDITION.	STATE HOSPITAL.			NORTHERN HOSPITAL.			BOTH HOSPITALS.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
Single.....	37	21	58	35	29	64	72	50	122
Married.....	19	49	68	55	55	110	74	104	178
Widows.....		8	8		14	14		22	22
Widowers.....	3		3	6		6	9		9
Divorced.....		5	5	1	1	2	1	6	7
Unknown.....	2		2	4	1	5	6	1	7
Total.....	61	83	144	101	100	201	163	188	345

NOTE.—The report of the State Hospital also shows the total number of males, married, since the opening of the Hospital to have been 638; females, 731; male, single, 659; females, 837; widowers, 43; widows, 113; divorced, males, 3; females 10; unknown, males, 46; females, 16.

TABLE showing movement of population in the two Hospitals for the Insane for the year ending Sept. 30, 1877.

	STATE HOSPITAL.			NORTHERN HOSPITAL.			BOTH HOSPITALS.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
Patients in hospital September 30, 1876.....	189	165	354	246	257	503	435	423	857
Admitted during the following year.....	61	83	144	101	100	201	163	183	345
Whole number treated during the year.....	250	248	498	347	357	704	597	605	1,202
Discharged recovered.....	21	24	45	17	23	40	38	47	85
Discharged improved.....	12	9	21	15	21	36	27	30	57
Discharged unimproved.....	11	10	21	29	30	49	40	30	70
Died.....	17	11	28	31	21	42	38	32	70
Not insane.....	1	.....	1	.....	.....	.....	1	.....	1
Total.....	62	54	116	82	85	167	144	139	283
Remaining under treatment September 30, 1877.....	188 ²	194	382	265	272	537	453	466	919
Daily average during the year.....	186.4	184.1	370.5	.....	.....	542 $\frac{1}{2}$	.....	.....	913

TABLE showing ages of those admitted during year.

AGES.	STATE HOSPITAL.			NORTHERN HOSPITAL.			BOTH HOSPITALS.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.
Less than 15....	.....	1	1	.....	.....	.....	.....	1	1
15 to 20 years...	8	4	7	4	6	10	7	10	17
20 to 30 years...	20	21	41	27	34	61	47	55	102
30 to 40 years...	19	21	40	23	25	48	42	46	88
40 to 50 years...	9	19	28	18	15	33	27	34	61
50 to 60 years...	7	10	17	12	12	24	19	22	41
Over 60.....	8	7	10	12	7	19	15	14	29
Unknown.....	.....	.....	.....	5	1	6	5	1	6
Total.....	61	83	144	101	100	201	162	183	345

TABLE showing residence of patients remaining September 30, 1877.

COUNTIES.	State Hospital.	Northern Hospital.	Number to which entitled.	COUNTIES.	State Hospital.	Northern Hospital.	Number to which entitled.
Adams	8	.....	6	Marathon.....	.....	5	8
Ashland .....	.....	.....	2	Marquette .....	.....	6	6
Barron	8	.....	4	Milwaukee	8	95	95
Bayfield .....	.....	.....	2	Monroe	10	.....	14
Brown .....	.....	26	27	Oconto .....	.....	12	11
Buffalo	5	.....	9	Outagamie .....	.....	23	20
Burnett.....	2	.....	4	Ozaukee.....	.....	12	18
Calumet .....	.....	12	12	Pepin	5	.....	6
Chippewa	18	.....	10	Pierce	11	.....	12
Clark .....	.....	3	6	Polk	6	.....	6
Columbia	19	1	18	Portage .....	.....	7	11
Crawford	11	.....	10	Racine .....	.....	20	22
Dane	44	.....	30	Richland	10	.....	12
Dodge.....	.....	86	87	Rock.....	34	.....	23
Door .....	.....	5	6	St. Croix	8	.....	12
Douglas	1	.....	2	Sauk	17	.....	19
Dunn	9	.....	10	Shawano .....	.....	5	5
Eau Claire.....	16	.....	12	Sheboygan .....	.....	25	26
Fond du Lac.....	.....	38	39	Taylor.....	.....	1	2
Grant	23	.....	23	Trempealeau.....	5	.....	10
Green	22	.....	14	Vernon.....	13	.....	14
Green Lake.....	.....	12	12	Walworth.....	14	.....	16
Iowa	23	.....	15	Washington	1	20	19
Jackson	6	.....	9	Waukesha.....	.....	26	23
Jefferson .....	.....	25	27	Waupaca .....	.....	13	15
Juneau	7	.....	10	Waushara .....	.....	7	9
Kenosha .....	.....	14	10	Winnebago .....	.....	40	35
Kewaunee .....	.....	7	11	Wood .....	.....	6	5
La Crosse.....	24	.....	16	State at large.....	2	9	.....
La Fayette.....	16	.....	14	Out of state.....	1	.....	.....
Lincoln .....	.....	1	2				
Manitowoc .....	.....	25	30	Total	382	537	.....

TABLE showing nativity of patients admitted, from the beginning.

NATIVITY.	State Hospital.	Northern Hospital.	Total.	NATIVITY.	State Hospital.	Northern Hospital.	Total.
Australia.....		1	1	Indiana.....	18	1	19
Austria.....	2	6	8	Iowa.....	1		1
Bavaria.....	10	3	13	Kentucky.....	5	1	6
Belgium.....	1	3	4	Maine.....	44	10	54
Bohemia.....	28	8	36	Massachusetts..	45	15	60
Canada.....	61	34	95	Maryland.....	3	1	4
Cuba.....	2		2	Michigan.....	17	5	22
Denmark.....	17	13	30	Missouri.....	3	1	4
England.....	125	34	159	New Hampshire..	39	8	47
France.....	5	3	8	New Jersey.....	11	2	13
Germany.....	425	264	689	New York.....	411	181	542
Holland.....	1	8	9	North Carolina..	2		2
Ireland.....	290	88	378	Ohio.....	82	14	96
Isle of Man.....	2		2	Pennsylvania....	75	15	90
New Brunswick..	7	3	10	Rhode Island....	5	1	6
Norway.....	160	28	188	South Carolina..	2		2
Nova Scotia.....	11		11	Tennessee.....	1		1
Poland.....	9	4	13	Vermont.....	63	25	88
Sweden.....	24	5	29	Virginia.....	6	1	7
Switzerland.....	32	8	40	Wisconsin.....	228	137	323
Scotland.....	32	5	37	On Ocean.....	2		2
Wales.....	32	8	40	United States...	3	1	5
Alabama.....	1		1	Unknown.....	92	38	129
Connecticut.....	38	9	47				
Illinois.....	20	3	23	Total.....	2,493	946	3,439

TABLE showing nativity of patients admitted during the year.

NATIVITY.	State Hospital.	Northern Hospital.	Total.	NATIVITY.	State Hospital.	Northern Hospital.	Total.
Austria.....	1	1	2	Indiana.....	3		3
Bavaria.....		3	3	Maine.....	3	2	5
Belgium.....		1	1	Massachusetts...	3	2	5
Bohemia.....	1	3	4	Michigan.....	1	2	3
Canada.....	6	7	13	New Hampshire..		2	2
Denmark.....		1	1	New Jersey.....	1	2	3
England.....	8	6	9	New York.....	18	27	45
France.....		1	1	Ohio.....	9	5	14
Germany.....	20	38	58	Pennsylvania....	1	4	5
Holland.....		2	2	Rhode Island....	1		1
Ireland.....	14	15	29	Vermont.....	4	8	12
Norway.....	16	2	18	Virginia.....	1		1
Prussia.....		10	10	Wisconsin.....	21	42	63
Sweden.....	6	1	7	United States...	3		3
Switzerland.....	3	1	4	Unknown.....	2	8	10
Scotland.....		2	2				
Connecticut.....	2	1	3	Total.....	144	201	345
Illinois.....	1	2	3				

The State Hospital.

The trustees of the State Hospital for the Insane, in their annual report, give the following *resume* of the work of the institution:

"The hospital was opened for the reception of patients in July, 1860. The total number of admissions to its benefits since that time, has been twelve hundred and eighty-seven males, and twelve hundred and five females — making a total of twenty-four hundred and ninety-three. Of this number there have been discharged recovered, three hundred and sixty-eight males, and three hundred and forty-eight females, making a total of seven hundred and sixteen; and discharged improved, two hundred and ninety-three males and two hundred and thirty-six females, making a total of five hundred and twenty-nine. The number discharged unimproved, has been two hundred and seventy males and two hundred and seventy-six females, making a total of five hundred and forty-six. The number that have died has been one hundred and seventy-one males and one hundred and forty-five females, making a total of three hundred and sixteen. An analysis of these figures shows the gratifying fact, that more than one-half of all the patients that have come under treatment in the hospital, have been discharged improved, and nearly one-third of the whole number have been discharged fully recovered, while but a little over one-fifth of the number have been discharged unimproved. This latter number, though their mental condition was not improved, received much better care than would have been possible outside of the hospital, which goes to make up the total of its benefits.

Among the permanent improvements effected during the past year were the water supply works, which provide an abundance of water from Lake Mendota; tanks sufficiently capacious to hold a day's supply of the same; and new iron stairways at the extremities of the wings.

The superintendent says: "The hospital is at present extremely crowded, and one life has been lost as the direct result of this. We have only a limited number of rooms adapted to the care of violent patients, which are in the extreme wing of the building. When we are not crowded, the custom is to keep all patients who are subject to paroxysms of violence, in a room alone, occupying always the same room, even during their quiet periods. But, during the

summer, we have been so crowded as to be obliged to resort to associating them with others while quiet, and to use their rooms for those who need safer care. This, of course, involves the risk of a paroxysm of violence coming on during the night, of which we may have no warning. Such was the case on the night of the 18th of May last, when two demented cases (who had slept in the same room for two weeks previous without trouble) quarreled, and one killed the other with a wooden pail."

It is the intention of the board of trustees to finish, during the current year, the changes in the water closets and clothes rooms which were begun last year; to complete the new roofing of the main building; to extend the water supply pipe farther into the lake; to complete arrangements for protection from fire; to put in coal gas works instead of the dangerous gasoline machine now used; to lay some new floors, and to build additional stables.

During the past year a change has occurred in the medical staff by the resignation of Dr Mack, whose place as assistant physician was filled by the appointment of Dr. J. N. DeHart. Mr. Peter Gardner also resigned his position of steward, which was filled temporarily by Mr. A. Tredway, but to which Mr. S. E. McDill has more lately been appointed.

SUBSISTENCE AND CURRENT EXPENSES.

Computed from the reports of the hospital:

The cost of subsistence in 1872 was	\$25,946 21
The average daily population was, for the same year, 365, making	
the average cost per capita.....	71 09
Or a weekly cost of	1 37
<hr/>	
The cost of subsistence in 1873 was	\$24,900 33
The daily average population for the same time was 329, making	
average cost per capita.....	75 69
Or a weekly cost of	1 45
<hr/>	
The cost of subsistence in 1874 was	\$26,146 17
The daily average population for the same time was 337, making	
the cost per capita	77 58
Or a weekly cost of	1 49
<hr/>	
The cost of subsistence in 1875 was	\$26,530 41
The daily average population for the same time was 363, making	
an average cost per capita of.....	75 57
Or a weekly cost of	1 45
<hr/>	

The cost of subsistence in 1876 was.....	\$25,228 94
The daily average population for the same time was 334, making an average cost per capita of.....	75 53
Or a weekly cost of.....	1 45

The cost of subsistence in 1877 was.....	\$24,610 63
The daily average population for the same time was 370, making an average cost per capita of.....	66 15
Or a weekly cost of.....	1 27

Cost of current expenses for an average of 337 patients for 1874 was	\$90,879 67
Making a yearly cost per patient of....	269 67
Or a weekly cost per patient of.....	5 16

With a yearly average of 364 patients, the current expenses for 1875 was.....	\$101,503 18
Making a yearly cost per patient of.....	278 85
Or a weekly cost of.....	5 30

For 1876 the cost of current expenses was.....	\$106,698 99
With a yearly average of 334 patients, the actual cost per patient was.....	301 40
Or a weekly cost of.....	5 79

For 1877 the cost of current expenses was.....	\$96,033 36
With a yearly average of 370.5 patients, the cost per patient was.	259 33
Or a weekly cost of.....	4 99

The following table shows the average quantities of different articles used yearly from 1871 to 1875 inclusive, the average prices paid, the quantities used during 1876 and 1877, and the average prices paid in those years:

Years.	Average supply of—	Quantity.	Price.	Amount.
1871-1875	Flour, bbls.	551	4.185	.....
1876	... do.	630 ¹ / ₄	4.937	\$3,111 39
1877	... do.	576 ¹ / ₂	6.50	3,746 30
1871-1875	Beef, lbs.	180,035	.046	.....
1876	Beef on foot, lbs.	164,265	.043	7,905 62
1877	... do.	185,370	.042	7,724 71
1871-1875	Butter, lbs.	20,727	.183	.....
1876	... do.	18,008 ¹ / ₂	.127	3,243 15
1877	... do.	17,921 ¹ / ₂	.19	3,203 60
1871-1875	Cheese, lbs.	1,992	.133	.....
1876	... do.	1,187	.114	135 18
1877	... do.	863 ¹ / ₂	.113	97 42
1871-1875	Eggs, doz.	5,835	.114	.....
1876	... do.	4,923	.115	568 51
1877	... do.	4,528	.113	512 82
1871-1875	Coffee, lbs.	4,375	.237	.....
1876	... do.	4,703	.24	1,127 86
1877	... do. ....	.....	.....	851 52
1871-1875	Sugar, lbs.	23,913	.115	.....
1876	... do.	25,918	.108	1,815 93
1877	... do. ....	.....	.....	2,481 46
1871-1875	Poultry, lbs.	4,419	.089	.....
1876	... do.	4,334	.09	390 02
1877	... do. ....	.....	.....	503 34
1871-1875	Fish and oysters. ....	.....	.....	1,006 85
1876	... do. ....	.....	.....	865 93
1877	... do. ....	.....	.....	802 19
1871-1875	Drugs and medicines. ....	.....	.....	1,798 15
1876	... do. ....	.....	.....	1,064 40
1877	... do. ....	.....	.....	1,105 73
1871-1875	Salaries and wages. ....	.....	.....	24,563 17
1876	... do. ....	.....	.....	30,869 51
1877	... do. ....	.....	.....	30,115 16
1871-1875	Lights. ....	.....	.....	1,864 42
1876	... do. ....	.....	.....	2,714 09
1877	... do. ....	.....	.....	2,954 72
1871-1875	Fuel. ....	.....	.....	12,632 53
1876	... do. ....	.....	.....	12,767 75
1877	... do. ....	.....	.....	13,688 35

The Northern Hospital.

According to the report of the Northern Hospital for the past year, the boilers, engines and water supply are now sufficient for an institution having a capacity for 964 patients. The change of boilers, which gave the hospital a provision so very far beyond its necessities, was not recommended by this board, but was decided by the last legislature to be a proper measure. The other changes

and improvements made at the hospital during the past year are such as to meet our warm approval. They consist of a small building in the rear for the care of the dead until their interment; a new barn for cows; an addition to the vegetable cellar, by which its capacity has been doubled; two large forcing beds in the garden; a new street to the railroad depot, which saves some distance; the laying of water, steam and gas pipes, and much grading and clearing of land. The superintendent notes as one of the greatest improvements made in the rear, "the completion of the side track by the Chicago & Northwestern Railroad Company, thus enabling them to take the cars directly into the coal house before they are unloaded." In relation to the lighting of the building Dr. Kempster says:

"The manufacture of gas from coal continues to be satisfactory. The entire cost for the past year has been \$986.70; total number of feet consumed, 1,070,170; for the ensuing year I am in hopes to still further reduce the cost by burning the tar under the retorts, which at once saves fuel and gets rid of what would otherwise become a nuisance. It would be advisable to increase the capacity of our present gas holder; during the long winter nights the gas burned in the house is double the capacity of the holder; as a measure of safety it should be made large enough to hold a supply for two nights, then, should anything occur to interrupt the manufacture of gas for a few hours, we should not be in danger of sudden darkness, or, what is worse, the use of lamps and candles in the wards."

Some changes have occurred in the medical staff of the hospital during the past year, on account of the resignation of Dr. McBride, the first assistant physician, in October, 1876. To fill the vacancy thus created, Dr. William H. Hancker was promoted to be first assistant physician, and Dr. John W. Goe to the position of second assistant physician. On the 1st of January, 1877, John R. Thomson, M. D., was appointed to fill the vacancy created by the latter promotion. The other officers of the institution remain unchanged.

Out of the 201 admissions during the year, fifty cases presented violent characteristics, 9 having attempted suicide; 7 attempted homicide; 5 threatened homicide; 3 attempted suicide and threatened homicide; and 2 attempted suicide and homicide. 38 of these admitted inherited insanity, and 44 inherited diseases inde-

pendent of insanity but of a character to insure physical deterioration. "Indeed," the superintendent says, "of those admitted during the year, we find that 76 inherited disease in some form, either insanity, consumption, cancer (and sometimes two or three of these diseases), or some other form of bodily deterioration." Only 27 of the whole number of admissions during the year were cases likely to recover soon, if at all. Of those remaining in the hospital at the end of the year, 187 are reported improved mentally and physically, 214 improved physically, and 136 unimproved except as their surroundings render them more comfortable.

SUBSISTENCE AND CURRENT EXPENSES.

The following comparative statement of the cost of subsistence and the general expenses of the institution, is based upon the itemized report of expenditures sent to the office of this board, and not upon the report of the State Treasurer:

The cost of subsistence in 1874 was	\$16,576 63
The daily average number of patients, $232\frac{1}{2}$, making the average yearly cost per capita	71 45
Or a weekly cost per capita of	1 37
The cost of subsistence in 1875 was ..	26,481 90
The daily average number of patients, $257\frac{1}{10}$, making the average yearly cost per capita	102 33
Or a weekly cost per capita of	1 96
The cost of subsistence in 1876 was	26,140 59
The daily average number of patients, $399\frac{1}{2}$, making the average yearly cost per capita	65 44
Or a weekly cost per capita of	1 23
The cost of subsistence in 1877 was	39,028 27
The daily average number of patients, $542\frac{1}{2}$, making the average yearly cost per capita	71 94
Or a weekly cost per capita of	1 38
The cost for current expenses in 1874 was	77,893 41
The daily average number of patients, $232\frac{1}{2}$, making a yearly cost per patient of	345 02
Or a weekly cost of	6 44
The cost of current expenses in 1875, deducting \$15,000 for house furniture	89,823 91
The daily average number of patients was $257\frac{1}{10}$, making a yearly cost per patient of	335 54
Or a weekly cost of	6 45
The cost of current expenses in 1876 was	97,623 45
The daily average of patients was $399\frac{1}{2}$, making a yearly cost per patient of	244 36
Or a weekly cost of	4 70
The cost of current expenses in 1877, less permanent improvements, was	117,571 07
The daily average of patients was 542.4, making a yearly cost per patient of	216 72
Or a weekly cost of	4 17

TABLE showing the comparative amounts spent for different articles and purposes for the years indicated.

Year.	Articles or purposes.	Quantity.	Price.	Amount.
1874	Fresh beefl.....	109,699 lbs.	\$0.04½	\$4,953 15
1874	Beef, on foot.....	140,366 lbs.	.042	6,236 55
1875	Fresh beef, dressed.....	12,477 lbs.	.049	622 04
1876	Beef, on foot.....	238,340 lbs.	.04	9,707 82
1877	...do.....	304,118 lbs.	.04	12,781 66
1874	Pork, salt.....	2,705½lbs.	.11½	311 15
1875	...do.....	1,075 lbs.	.12	217 81
1876	...do.....	756 lbs.	.13	97 49
1877	...do.....	200 lbs.	.11	22 50
1874	Mutton.....	851½lbs.	.06¾	57 16
1875	...do.....	281 lbs.	.09½	26 54
1876	...do.....	1,954½lbs.	.06½	134 54
1877	...do.....	702 lbs.	.07¾	54 27
1874	Eggs.....	1,901 doz.	.17	324 26
1875	...do.....	2,585 doz.	.18	469 67
1876	...do.....	2,710¼doz.	.15	418 80
1877	...do.....	4,667 doz.	.12	573 62
1874	Poultry, chickens.....	339½lbs.	.14	48 14
1875	Poultry and turkeys.....	675¼lbs.	.12½	84 58
1876	Poultry.....	410 lbs.	.15	64 47
1877	...do.....	1,808 lbs.	.11	149 98
1874	Flour.....	731 cwt.	2.87	2,097 97
1875	Flour, family and graham.....	1,170.73cwt.	2.58	3,026 61
1876	Flour.....	1,454.32cwt.	2.60	3,789 56
1877	...do.....	1,838.58cwt.	3.25	5,974 75
1874	Butter.....	10,373½lbs.	.28½	2,952 85
1875	...do.....	21,698 lbs.	.29¾	6,448 83
1876	...do.....	24,563¼lbs.	.24½	5,964 71
1877	...do.....	32,229 lbs.	.20	6,512 32
1874	Sugar.....	15,205 lbs.	.104	1,595 28
1875	...do.....	32,271 lbs.	.111	3,613 78
1876	...do.....	14,101 lbs.	.102	1,451 97
1877	...do.....	40,854 lbs.	.11	4,629 88
1874	Coffee.....	2,917 lbs.	.296	865 75
1875	...do.....	6,546 lbs.	.275	1,769 99
1876	...do.....	2,321 lbs.	.234	540 52
1877	...do.....	5,775 lbs.	.23	1,330 24
1874	Tea.....	1,544 lbs.	.64	991 09
1875	...do.....	2,531 lbs.	.586	1,478 87
1876	...do.....	1,237 lbs.	.495	617 08
1877	...do.....	2,915 lbs.	.41	1,216 41
1874	Fruit.....			513 94
1875	...do.....			1,363 31
1876	...do.....			1,134 75
1877	...do.....			1,930 19

Comparative amount spent for different articles — continued.

Year.	Articles or purposes.	Quantity.	Price.	Amount.
1874	Fish, oysters and the sort.....			287 44
1875	...do			378 85
1876	...do			319 77
1877	...do			472 87
1874	Clothing			2,694 29
1875	...do			4,373 19
1876	...do			2,802 57
1877	...do			4,768 10
1874	Drugs and medicines			1,129 46
1875	...do			1,517 31
1876	...do			1,787 93
1877	...do			3,490 89
1874	Fuel.....			21,643 79
1875	...do			17,326 13
1876	...do			9,726 13
1877	...do			14,421 31
1874	Salaries and wages			20,057 69
1875	...do			23,743 44
1876	...do			26,543 53
1877	...do			32,226 29
1874	Subsistence			16,576 63
1875	...do			26,481 90
1876	...do			26,140 59
1877	...do			39,028 27

Wisconsin Industrial School for Boys.

(Located at Waukesha.)

MANAGERS.

Terms expire April 3, 1878—Andrew E. Elmore, Fort Howard;
John Mather, East Troy.

Terms expire April 3, 1879—Wm. Blair, Waukesha; Edward
O'Neill, Milwaukee.

Term expires April 3, 1880—Charles R. Gibbs, Whitewater.

OFFICERS OF THE BOARD.

President—William Blair.

Vice-President—John Mather.

Treasurer—Andrew E. Elmore.

Secretary—Charles R. Gibbs.

OFFICERS OF THE SCHOOL.

Superintendent—S. J. M. Putnam.*Matron*—Mrs. S. J. M. Putnam.

TABLE showing amount expended each year, according to the reports of the State Treasurer, the number of inmates and cost of support.

[This includes the \$15,000 capital of the boot and shoe factory, and the cost of rebuilding after the fire of 1868.]

Year.	Current expenses.	Building, etc.	Total.	Whole No. of pupils.	Average No. of pupils.
1860.....	\$4,953 81	.....	\$4,953 81	39	39
1861.....	5,879 17	\$1,142 62	7,021 79	58	45
1862.....	5,861 21	509 63	6,370 84	80	65
1863.....	6,916 22	347 75	7,263 97	98	83
1864.....	12,456 53	8,500 00	13,956 53	155	145
1865.....	19,756 47	747 91	20,504 38	245	170
1866.....	24,026 14	29,804 76	53,830 90	209	160
1867.....	24,247 56	13,355 85	37,602 91	217	162
1868.....	26,741 83	11,178 03	37,919 86	226	165
1869.....	24,982 34	4,507 87	29,490 21	233	178
1870.....	32,103 04	13,449 12	45,552 16	293	206
1871.....	32,387 95	14,840 05	47,228 00	288	259
1872.....	36,533 70	11,667 30	48,206 00	347	284
1873.....	42,215 00	23,500 00	65,715 00	362	286
1874.....	40,438 50	.....	40,438 50	402	293
1875.....	41,750 00	10,000 00	51,750 00	412	.....
1876.....	33,277 00	21,000 00	54,277 00	415	299
1877.....	55,347 50	18,000 00	73,347 50	471	341
Total....	\$469,878 97	\$177,550 39	\$647,429 36	.....	.....

The following is a statement of the reported receipts of the school from all sources other than taxation, from the beginning:

Year.	Receipts reported.	Year.	Receipts reported.
1860.....	\$63 48	1874.....	4,910 53
1863.....	50 00	1875.....	5,319 70
1867.....	1,200 00	1876.....	3,976 51
1868.....	120 00	1877.....	3,263 61
1870.....	2,480 73		
1871.....	1,895 65	Total.....	\$29,088 99
1872.....	2,167 10		
1873.....	3,641 64		

The following is a statement of the ages of all the boys remain-
7 — C. & R. [Doc. 14]

ing at the school October 1, 1877. It will be seen from this that very few boys are retained after 18 years of age:

<i>Ages.</i>	<i>No.</i>	<i>Ages.</i>	<i>No.</i>
Ten	23	Eighteen	35
Eleven	23	Nineteen	12
Twelve	36	Twenty	6
Thirteen	52	Twenty-one	4
Fourteen	76		
Fifteen	98	Total	471
Sixteen	63		
Seventeen	43		

TABLE Showing the counties from which boys were committed during the past year, and the number committed.

<i>Counties.</i>	<i>No.</i>	<i>Counties.</i>	<i>No.</i>
Brown	19	Milwaukee	30
Calumet	3	Outagamie	9
Columbia	2	Pierce	1
Crawford	1	Polk	1
Dane	1	Portage	1
Dodge	2	Racine	8
Dunn	1	Rock	8
Eau Claire	1	Richland	2
Fond du Lac	5	Sauk	1
Green Lake	1	Sheboygan	3
Grant	4	Trempealeau	1
Iowa	2	Waupaca	1
Jefferson	5	Walworth	1
Juneau	2	Winnebago	6
Kenosha	1	Wood	4
La Crosse	4	Waukesha	1
Manitowoc	3		
Monroe	4	Total	134

TABLE Showing birthplace of those admitted during the past year.

<i>States.</i>	<i>No.</i>	<i>Countries.</i>	<i>No.</i>
Wisconsin	70	Germany	13
New York	10	Poland	9
Illinois	3	Belgium	4
Michigan	3	France	2
Pennsylvania	2	England	2
Ohio	1	Bohemia	2
Maine	1	Ireland	1
Iowa	1	Denmark	1
Indiana	2		
Minnesota	1	Total Foreign	34
Missouri	2		
Massachusetts	2	Unknown	2
Total native	98		

TABLE showing the nationality of the parents of those admitted during the past year.

Nationality.	No.	Nationality.	No.
American	25	Polish.....	9
German	20	Bohemian	3
Irish.....	41	Belgian	3
English	21	Danish	2
Canadian.....	1	Norwegian	1
French.....	6	Welsh	1
Scotch	1	Unknown.....	2

Table showing cost of supports of inmates per capita.

[This includes the total expenditures less amount of permanent improvements, cost of material for sock factory, and sale of clothing to employees amounting to \$3,863.98.]

SUBSISTENCE.			CLOTHING.		
Whole amount.	Per capita annually.	Per capita daily.	Whole amount.	Per capita annually.	Per capita daily.
\$10,810 88	\$31 70	8½ cents.	\$4,141 07	\$12 14⅓	3½ cents.
SALARIES.			FUEL AND LIGHT.		
Whole amount.	Per capita annually.	Per capita daily.	Whole amount.	Per capita annually.	Per capita daily.
\$14,167 09	\$41,54½	11½ cents.	\$3,615 81	\$10 60⅓	3 cents.
ALL OTHER EXPENSES NOT INCLUDED IN THE ABOVE.			TOTAL EXPENSES.		
Whole amount.	Per capita annually.	Per capita daily.	Whole amount.	Per capita annually.	Per capita daily.
\$10,222 48	\$29 98	8. cents.	\$42,957 33	\$125 97½	34½ cents.

The number of inmates of the school on the first of October, 1876, was 318. The number committed during the year was 134; re-committed, 6; returned from out on ticket-of-leave, 13. There

were released on ticket-of-leave, 91; returned on account of illegal commitment, 4; escaped, 3; died, 5; honorably discharged, 1; on furlough at time of report, 3; leaving 364 present October 1, 1877. The number of boys present at one time has varied during the year from 316 to 366, the average being 341. Of the 134 boys admitted during the year, 52 had both parents living. Fourteen of them were committed for vagrancy, 53 for larceny, 59 for incorrigibility, 4 for burglary, 1 for assault and battery, 2 for destroying property and 1 for grand larceny.

The superintendent reports a population fully as large as can be comfortably accommodated by all the buildings of the school. A graveled road-way has been built along the bank of the river in front of the grounds, and ornamental trees planted along it. About 1,000 currant bushes have been set out; new fences have been built; the boys' playground has been enlarged; a meat room, connecting with the ice-house, has been constructed, as well as a wagon shed. A new correction house with a capacity for 40 boys has been erected, and was nearly ready for use on the 1st of October. It is of stone, with a slate roof, three stories high and 80 feet by 44. It contains all that the other family buildings are provided with, and a school-room, in addition, with a workshop and lodging room for such of the employees as are not provided for elsewhere. The managers say in their report:

"We have a greater number of inmates than we ever had before. The increase during the past year has been greater than in any other year of our history. This has rendered the employment of additional help necessary, and increased the cost of subsistence. Notwithstanding the addition to our number of between forty and fifty above the preceding year, the current expenses of the institution have been reduced about \$1,800. This will be regarded as substantial evidence of economical management. We believe the school was never in better condition than at present. It has met and promises to continue to meet the expectations of its intelligent and judicious friends. It is now about twenty years since the law establishing this institution was enacted. Those who were sent here in the outset, and still survive, have long since entered into active life with such preparation as they were able to secure here, and together with those who have left the school later, numbering in all more than a thousand, are living testimonials of the generosity and wisdom of the state. A large proportion have done well,

and are repaying to the state in the capacity of industrious and orderly citizens, the cost of their education and reformation here. Every county has its jail, where criminals are imprisoned before trial and after conviction for crime."

The managers think that they have just cause of complaint in the ignorance shown as to the objects and administration of the institution, by newspapers and by public officers. In some cases the former have wasted much sympathy upon young offenders sent there "until they are twenty-one years old," as if they were really to undergo imprisonment for all that time. In fact, the managers have power to discharge boys, in their discretion, at any time, and invariably do so as soon as it appears from the general deportment of an inmate that it is safe to place him in the hands of his parent or guardian, or in any respectable family. The history of the school shows, notwithstanding the long term of commitment, *that not one in a hundred* remains until the expiration of his minority, and a large proportion do not remain one-fourth of the time for which they are committed.

Nor are the boys kept under any more severe restrictions while they remain at the institution, than are used at many boarding schools. Confinement in the correction house is only the penalty for refractory behavior, and a greater degree of freedom is the systematic reward for continued good deportment.

The duties of all connected with the school have, in the judgment of the managers, been faithfully performed. "The progress made in the educational department entitles all engaged there to favorable mention. The buildings for which appropriation was made by the last legislature are nearly completed, and will be occupied before this report is in the hands of the legislature. The amount appropriated will be sufficient to finish all that was contemplated, and in style, material and workmanship equal, if not superior to the buildings heretofore erected here and always regarded as creditable to the state.

The boot and shoe manufactory is regarded by the managers (which opinion is concurred in by this board), as a wise investment. Not only has it furnished employment for a large number of boys, but a profit of four thousand dollars has been added to the capital, making it now nineteen thousand dollars, and it is hoped that at the end of three years from this date a portion of the profits may be used toward the payment of current expenses.

The Wisconsin State Prison.

[Located at Waupun.]

The officers of the prison are :

DIRECTORS:

Wm. E. Smith, Milwaukee; term expires December 31, 1877.

Nelson Dewey, Cassville; term expires December 31, 1879.

Geo. W. Burchard, Fort Atkinson; term expires December 31, 1880.

RESIDENT OFFICERS:

Horatio N. Smith, warden, salary.....	\$2,000 00 per annum.
Joel Rich, deputy warden, salary.....	1,000 00 ... do....
Jacob Foss, clerk, salary.....	1,000 00 ...do....
Rev. E. Tasker, chaplain, salary.....	800 00 ...do....
Rev. Joseph Smith, chaplain (Catholic), salary.....	200 00 ...do....
H. L. Butterfield, M. D., physician.....	300 00 ...do....

TABLE showing appropriations, current expenses paid by the state, officers' services, subsistence, etc., of the prison for the last twenty-seven years.

Years.	Total cost to State by appropriation.	Current expenses.	Officers' services.	Subsistence	Average No.	Per capita for subsistence.	Per capita for officers' salaries.
1851..	\$10,000 00						
1852..	16,389 60						
1853..	13,617 73						
1854..	42,378 08						
1855..	88,135 26						
1856..	49,079 73						
1857..	37,200 00						
1858..	35,000 00						
1859..	49,500 00						
1860..	31,696 24						
1861..	24,504 13						
1862..	26,609 86						
1863..	30,900 00						
1864..	41,371 55						
1865..	35,500 00						
1866..	44,000 00	\$36,813 29	\$15,535 06	\$8,266 18	128	\$64 57	\$121 36
1867..	40,204 00	40,675 76	15,060 91	13,636 14	194	70 28	77 63
1868..	59,796 00	50,589 45	17,970 84	18,242 04	202	89 86	88 52
1869..	40,000 00	46,341 26	17,994 18	14,769 69	186	79 40	96 74
1870..	40,000 00	41,954 86	13,998 48	11,127 20	189	74 93	94 25
1871..	99,990 00	53,500 72	23,720 15	15,805 92	202	78 24	117 42
1872..	52,928 00	50,226 47	23,453 05	13,534 14	201	67 33	116 63
1873..	45,550 47	49,889 12	22,108 20	10,776 77	180	59 87	122 81
1874..	49,968 89	31,250 00	9,194 68	8,181 07	214	75 99	85 93
1875..	46,341 54	30,000 00	18,155 68	15,171 39	240	63 21	75 64
1876..	16,257 50	16,257 50	19,078 56	14,017 57	261	53 71	73 08
1877..	47,612 50	29,612 50	18,859 70	19,485 85	290	67 19	65 03

The liabilities and assets of the prison, September 30, 1877, were as follows:

ASSETS.

Cash on hand.....	\$46 38
Accounts outstanding.....	19,443 65
Bills receivable, notes.....	3,307 89
Due from United States for care of United States convicts, as per account rendered July 1, 1877.....	\$727 47
From July 1 to September 30.....	483 41
	<u>1,209 88</u>
Due from Blind Institute.....	123 43
Total assets.....	<u>\$24,130 07</u>

LIABILITIES.

Accounts for purchases.....	\$3,901 56
Accounts for purchases payable in trade.....	538 67
Convicts' deposits	673 53
Bills payable, acceptances.....	1,300 00
Total liabilities.....	<u>\$6,412 75</u>
Excess of credits over liabilities..	<u>\$17,717 33</u>

The inventory of property in the prison on the 30th of September, 1877, shows the following totals of value:

Amount of stock in shops and store.....	\$62,106 62
Amount of machinery and tools.....	28,206 48
Amount of furniture and tools.....	18,215 12
Total.....	<u>\$108,528 22</u>
Amount of property on hand September 30, 1876.....	96,507 66
Increase, 1877, over 1876	<u>7,020 56</u>

The following table exhibits the receipts of the prison from the sources named, for the years 1872-7:

SOURCES.	1872.	1873.	1874.	1875.	1876.	1877.
Sales of—						
Shoe-shop	\$343 26	\$327 50	\$261 00	\$444 07	\$248 05	\$38 67
Chair-shop....	44,749 48	48,467 73	49,975 02	42,600 68	54,386 27	62,793 89
Tailor-shop ...	159 40	223 81	318 95	400 45	124 10	116 44
Stone-shop....	2,532 93	1,908 60	918 66	920 89	651 11	133 10
Barn and yard.	186 56	101 55	16 47	819 86	82 22	174 27
Wagon-shop ..				2,763 03	1,205 19	8,274 72
Harness-shop ..						933 75
Broom-shop....						1,046 83
Tin-shop.....						33 00

In the above table, the chair and cabinet shops are counted as one.

The expenditures of the prison have been given in connection with those of the other state institutions on a previous page. The receipts for the year ending September 30, 1877, were as follows:

Balance on hand October 1, 1876.....		\$402 13
Appropriation from the state for the year ending March 1, 1877.....	\$11,612 50	
New roof on both cell rooms.....	1,466 08	
General repairs	8,000 00	
Current expenses.....	18,000 00	
		39,078 53
Received from U. S. for care of U. S. convicts.....		1,352 05
visitors.....	\$616 75	
convict's deposits.....	792 52	
boarding of officers and mechanics.....	169 55	
		1,578 82
accounts prior to April 1, 1874.....		83 40
Received for goods furnished to other state inst'ns		8,533 97
Received on account, and of sales from chair shop	\$61,014 94	
from wagon shop	10,308 17	
stone shop.....	278 14	
broom shop	258 73	
harness shop.....	949 30	
shoe shop.....	66 37	
tailor shop	31 11	
tin shop.....	16 45	
		72,923 21
Received for interest	\$65 83	
old boiler.....	150 00	
revolver.....	11 00	
		226 83
Received from barn and yard—		
Cows	\$72 50	
Pig.....	10 00	
Keeping horse.....	10 00	
Barrels and rags.....	10 79	
		103 29
Freight refunded by C., M. & St. P. R. R.....	\$30 00	
Freight refunded by Shadbolt & Boyd.....	19 92	
		49 92
All other receipts—bread, \$1.30; razor, \$1; ice 50 cents		2 80
Total receipts.....		\$124,334 95

STATISTICS OF POPULATION.

The whole number of convicts

	Males.	Females.	Total.
Confined September 30, 1876, was.....	253	13	266
Received during the year.....	172	4	176
Totals.....	425	17	442
Discharged and died during the year.....	145	17	152
In confinement October 1, 1877.....	280	10	290

In confinement September 30, 1876.....	266
In confinement September 30, 1875.....	248
In confinement September 30, 1874.....	280
In confinement September 30, 1873.....	180

Average number during year ending —

September 30, 1877..	290
September 30, 1876.....	261
Average during the five years ending September 30, 1875.....	205

TABLE giving the record of the prisoners as far as ascertained.

First convictions.....	258	Temperate.....	51
Second convictions.....	23	Intemperate.....	74
Third convictions.....	6	Moderate.....	128
Fifth conviction.....	1	No record.....	87
Sixth conviction.....	1		
Eighth conviction.....	1	Total.....	290
Total.....	290		

TABLE showing the present condition of the prisoners and their terms of sentence.

Insane, violent..	5	For life.....	42
Insane, m' d.....	11	20 years.....	2
Superannuated.....	10	From 15 to 20 years.....	2
Partially disabled.....	10	From 10 to 15 years..	15
Diseased.....	17	From 5 to 10 years.....	32
Able bodied.....	227	From 3 to 5 years.....	56
Females (1 insane).....	10	From 2 to 3 years..	84
Total.....	290	Between 1 and 2 years.....	22
		One year.....	27
		Less than one year.....	8
		Total.....	290

TABLE showing nativity of prisoners received during the year.

Arkansas.....	1	New Jersey.....	2	Canada.....	6
Connecticut.....	2	New York.....	89	Denmark.....	1
Illinois.....	11	North Carolina..	1	England.....	4
Indiana.....	2	Ohio.....	5	France.....	1
Iowa.....	6	Pennsylvania....	6	Germany.....	16
Louisiana.....	1	Rhode Island....	1	Holland.....	1
Maine.....	5	Vermont.....	3	Ireland.....	7
Maryland.....	2	Virginia.....	1	Norway.....	7
Massachusetts....	8	Wisconsin.....	25	Ocean.....	1
Michigan.....	2			Poland.....	1
Minnesota.....	1	Native.....	127	Scotland.....	2
Mississippi.....	1			Switzerland.....	1
Missouri.....	1				
New Hampshire..	1	Bohemia.....	1	Foreign.....	49

Of the 290 prisoners confined on the 30th of September, 1877, 189 were of American birth, and 101 of foreign birth. Of the 2,386 received since the establishment of the prison, 1,348, or 56.58 per cent. were of American, and 1,038, or 43.42 per cent. of foreign birth.

TABLE showing counties from which the prisoners were received during the year.

Adams.....	5	Jefferson.....	8	Richland.....	1
Brown.....	6	Juneau.....	1	Rock.....	17
Buffalo.....	1	Kenosha.....	5	Sauk.....	3
Calumet.....	2	Kewaunee.....	1	Sheboygan.....	2
Chippewa.....	3	La Crosse.....	8	Taylor.....	1
Columbia.....	6	Marathon.....	1	Trempealeau.....	3
Crawford.....	2	Milwaukee.....	5	Vernon.....	1
Dane.....	13	Monroe.....	4	Walworth.....	6
Dodge.....	8	Outagamie.....	2	Waukesha.....	3
Dunn.....	5	Ozaukee.....	2	Waupaca.....	5
Fond du Lac..	5	Pepin.....	2	Waushara.....	4
Grant.....	5	Pierce.....	2	Winnebago.....	5
Green.....	3	Portage.....	7	Wood.....	3
Green Lake....	2	Racine.....	4	U. S. courts.....	4
Total.....					176

TABLE, showing counties from which the prisoners remaining September 30, 1877, were received.

Ashland.....	5	Outagamie.....	3	Kenosha.....	4
Brown.....	5	Portage.....	11	Kewaunee.....	1
Chippewa.....	6	Pierce.....	2	La Crosse.....	13
Columbia.....	8	Pepin.....	2	La Fayette.....	1
Crawford.....	4	Racine.....	4	Sheboygan.....	3
Calumet.....	5	Rock.....	21	St. Croix.....	1
Dane.....	22	Richland.....	1	Taylor.....	1
Dodge.....	11	Sauk.....	3	Trempealeau.....	4
Dunn.....	11	Shawano.....	3	Vernon.....	2
Eau Claire.....	3	Grant.....	19	Walworth.....	10
Fond du Lac....	9	Green Lake.....	3	Wood.....	3
Marathon.....	1	Green.....	6	Waukesha.....	4
Manitowoc.....	4	Iowa.....	1	Waupaca.....	4
Milwaukee.....	16	Jackson.....	1	Waushara.....	8
Monroe.....	3	Jefferson.....	14	Winnebago.....	11
Oconto.....	2	Juneau.....	5	U. S. courts.....	8
Total.....					290

TABLE, showing the ages of the prisoners in confinement September 30, 1877.

From 16 to 20.....	35	From 50 to 60.....	18
From 20 to 30.....	124	From 60 to 70.....	12
From 30 to 40.....	61	From 70 to 80.....	2
From 40 to 50.....	35	From 80 to 90.....	3
Total.....			290

TABLE showing nativity of those undergoing sentence of imprisonment for life.

Georgia.....	1	Ireland	9
Indiana.....	1	Germany	8
Illinois.....	1	Holland	1
Kentucky.....	1	Bohemia	1
New York.....	4	England	2
New Hampshire.....	1	Switzerland	2
Ohio	1	Sweden.....	1
Pennsylvania	2		
Tennessee.....	2	Foreign	24
Wisconsin	4		
Native... ..	18		

COMPARATIVE PRISON POPULATION.

Michigan, Pop. in 1870...	1,184,059	Confined in State Prison, 1876.	835
Indiana.....do.....do.	1,680,637	....do.....do.....do..	1608
Illinois...do.....do....	2,539,891	....do.....do.....do..	1,547
Iowa.....do.....do....	1,194,020	....do.....do.....1875.	309
Minnesota .do.....do....	439,706	....do.....do.....1876.	166
Wisconsin .do.....do....	1,054,670	....do.....do.....do..	266

Of those discharged during the year, 117 were released by commutation and reduction of time; two by expiration of terms; twenty-four by pardons of governor; three by pardons of president; one by order of court, and one by order of directors. Two committed suicide, and two others died. Total 152.

The total cost of maintaining and subsisting the prisoners (exclusive of the expense of manufactures) during the year was \$39,841.68 or an average per capita cost of \$137.05. The total number of days' confinement of prisoners was 105,823, of which 26,629 days were lost time; 18,545 were devoted to necessary labor, but not productive of direct financial profits; 60,649 were employed in productive labor.

¹ Includes only those confined in the Northern Prison. About the same number are confined in the Southern Prison, but its report is not at hand.

STATISTICS OF CRIME, showing the sentences to State Prison from October 1, 1876, to September 30, 1877.

CRIME AGAINST PERSON.					CRIME AGAINST PROPERTY.				
CRIME.	No. con- viction.	Highest sentence.	Lowest sentence.	Average sen- tence.	CRIME.	No. con- viction.	Highest sentence.	Lowest sentence.	Average sen- tence.
Adultery	7	2 yrs ..	6 mths.	1 yr 3½ mths.	Arson	1	.....	.....	5 yrs.
Assault with intent to kill.	7	5 yrs ..	2 yrs ..	3 yrs 6½ mths.	Burglary	44	5 yrs ..	6 mths.	2 yrs 1½ mths.
Assault with intent to ravish.	3	5 yrs ..	1 yr ..	2 yrs 8 mths.	Burglary and larceny	18	5 yrs ..	9 mths.	2 yrs 5½ mths.
Assault on an officer of the State Prison	1	.....	.....	3 yrs.	Counterfeiting	1	.....	.....	2 yrs.
Assault with intent to do bodily harm	2	2 yrs ..	1 yr ..	1 yr 6 mths.	Embezzlement	2	1 yr ..	1 yr ..	1 yr.
Abortion	1	.....	.....	6 yrs.	Forgery	11	4 yrs ..	1 yr ..	1 yr 10½ mths.
Incest	1	.....	.....	6 yrs.	Horse stealing	10	5 yrs ..	2 yrs ..	3 yrs 9½ mths.
Murder	2	Life ..	.....	.....	Larceny	47	10 yrs ..	6 mths.	1½ mths.
Manslaughter, 3d degree ..	3	4 yrs ..	3 yrs ..	3 yrs 4 mths.	Obstructing railroad track.	3	8 yrs ..	2 yrs ..	5 yrs 4 mths.
Manslaughter, 4th degree ..	1	.....	.....	2 yrs.	Passing counterfeit money.	1	.....	.....	5 yrs.
Polygamy	1	.....	.....	3 yrs.	Procuring goods under false pretenses	1	.....	.....	1 yr.
Rape	4	11 yrs ..	3 yrs ..	8 yrs 6 mths.	Robbery	1	.....	.....	3 yrs.
Seduction	1	.....	.....	2 yrs.	Receiving stolen goods	1	.....	.....	1 yr.
Violating conditions of pardon	1	.....	.....	.....	Violation of section 5209 United States statutes ..	1	.....	.....	5 yrs.
Total	84	.....	.....	.....	Total	142	.....	.....	.....
Total average term sentences, three years and twenty-three days. Per cent. of crime against person, 19.77.					Total average of all sentences, two years and nine months and twenty-five days. Per cent. of crime against property, 80.23.				

Total average of all term sentences, two years ten months and thirteen days.

In view of the facts set forth in the tabular statement on the preceding page, the warden is "of the opinion that too wide a range is allowed the courts in their sentences for crime, and that the minimum should be increased and the maximum decreased in almost all cases, and in no case should a person be sent to the state prison for less than a year." The directors agree with the warden in relation the necessity for a modification of the laws of the state concerning the terms of sentences, and say farther: "So far as the immediate effects upon the discipline of the convicts are concerned, we consider it immaterial whether the modification is effected by the abolition of time sentences, as advocated by the State Board of Charities and Reform, or by limiting the discretion now reposed in the various courts and judges, as recommended by the warden. A discussion of the effects likely to be produced upon the criminal classes, and through them upon society at large, by the adoption of either of these methods, would protract this report to unwarrantable length, and we therefore remit it to those more immediately charged with such duties."

This board is also disinclined to renew, at present, the discussion of the question of abolishing time sentences, but its opinion in favor of such abolition, as expressed in the report of last year, is unchanged, or, rather, has been strengthened by experience and observation.

The board of directors recommend that the laws be so modified as to permit the gate fees to be appropriated to the use of the prison library; that all prison property, funds and debts be distinctly declared to be the property of the state, and that the warden be relieved from personal liability on contracts made on behalf of the state; that power be conferred upon the governor to issue not to exceed three pardons annually *ex gratia*, and without compliance on the part of the recipients with the present laws concerning pardons; that there be such modification of the "good time law" as shall entitle short term convicts to less credits, and long term convicts to more credits for good conduct, than is now the case; that the warden have authority to pay the expenses of prisoners to any point within the state; and that a delegate be sent to the International Prison Congress from Wisconsin.

There have been no additions made to the prison buildings during the past year, and no considerable changes made except to re-

build the engine house which was destroyed by fire January 31, 1877, and to make such repairs as use and natural wear and decay have rendered necessary.

In relation to the claim against the Corn Exchange Bank of Wau-pun, the directors say:

"For two years last past, the warden has reported as a portion of the prison assets a claim against the Corn Exchange Bank of Wau-pun, amounting to \$9,631.07, and he, as well as the directors, has entertained the opinion that this was, in fact, a debt due to the state from that bank, and therefore, that in the bankruptcy proceedings pending against it, this claim would be entitled to preference and paid in full. Such, also, was the opinion of the attorney general and other distinguished counsel who were consulted in reference thereto. A decision to that effect was given by Judge Dyer, of the United States district court, but on appeal by the assignee to the United States circuit court, Judge Drummond reversed the judgment. No appeal being allowed from the circuit to the supreme court of the United States in such matters, there is no alternative but to accept and abide by the judgment as rendered by Judge Drummond, which places this claim on a par with all other claims against the bank, and renders the amount likely to be received entirely uncertain, but presumably very small. We know that in fact a very large reduction must be made in this item, but because the amount is uncertain, we suffer it to remain nominally as heretofore. There is no doubt in the minds of the directors as to the technical liability of the warden to the state for whatever deficiency may arise in this matter; but whether he should, in fact, be called upon to respond to this technical liability, is a question, as it would seem, very proper to be submitted to the legislature for consideration and determination."

PRISON LABOR CONTRACTED.

On the 20th of September last an agreement was concluded between the prison authorities and Messrs. M. D. Wells & Co., of Chicago, by which the labor of all the able bodied convicts (except such as may be required in the ordinary business of the prison), not to exceed 300, however, is let to the said firm to be employed in the manufacture of boots and shoes. The contract is for five years from January 1, 1878, and provides that sufficient shop room shall

be furnished within the walls of the prison, and also reasonable room for storage, as well as necessary steam power, shafting, etc. It also provides that discipline shall be maintained by the legally constituted authorities of the prison, and that a sufficient number of guards and officers shall be furnished for the purpose. On the part of Messrs. Wells & Co., it is provided that they shall pay monthly at the rate of forty cents per day for each day's labor performed for them during the preceding month, that nine hours and forty-five minutes of labor be accounted as a full day, and that the regulation of the hours of labor be placed exclusively in the hands of the warden. It is further provided that Messrs. Wells & Co. furnish their own foreman and instructors, free of expense to the state, and also such material and machinery as may be required to keep the convicts employed.

It is mutually agreed that no deduction from the time is to be made on account of neglect or inability of contractors to provide work, or on account of time consumed by convicts in shaving, washing, changing clothes or receiving visits in accordance with the prison rules. If the number of able-bodied convicts should exceed 300 at any time, the contractors have the option of employing such excess, if they desire, on the same terms as the others are employed, and the contractors take the risk of fire and other ordinary casualties, except as to the buildings, which are to be replaced by the state if destroyed without fault of the contractors, their agents or employés. The contractors agree to keep the buildings in as good order as at present, except ordinary wear and tear, and accidental damage not occurring through their neglect or fault. They also agree to forfeit their rights under the contract if they neglect for thirty days to pay for labor performed. It is mutually agreed that no part of the interest of the contractors can be sub-let, and that either party may terminate the contract by a written notice six months in advance.

The prison physician reports remarkably good health among the convicts during the past year, and calls attention to the condition of the insane prisoners, who are in urgent need of relief. The deaths which have occurred during the year have been, one by suicide, one of consumption, one of paralysis, and one, John Widderman, aged 81, of disease of the heart.

Soldiers Orphans' Home.

No report has been received from the trustees of this charity, but we learn from the trustees' report to the governor that no appropriation from the state is needed to pay the thirty remaining pensioners. Of these ten will arrive at the age of 14 during the coming year, when their pensions will cease. The following is a statement of the receipts and expenditures of the Home for the past

FINANCIAL STATEMENT.

The receipts and expenditures in behalf of Soldiers' Orphans of Wisconsin, from October 1, 1876, to September 30, 1877 inclusive, correspond to the following:

1876.	RECEIPTS.	
Oct. 1	Balance on hand	\$1,254 64
	Cash from —	
Nov. 24	State Treasurer	1,500 00
Mar. 19	State Treasurer	1,000 00
Aug. 27	State Treasurer	500 00
		<hr/> \$4,254 64 <hr/>
	DISBURSEMENTS.	
Sep. 30	To orders paid Nos. 326 to 468 new series	\$3,842 25
	Cash on hand	1,412 39
	Total	<hr/> \$4,254 64 <hr/>

III. THE COUNTY JAILS AND OTHER LOCAL PRISONS.

As has been stated before, in the first part of this report, all but one of the county jails of the state which have been in actual use during the past year, have been visited by members or the secretary of this board. Two of the jails which have not been used for purposes of imprisonment have been inspected by gentlemen not members of the board, but who were perfectly qualified to obtain and record the information wanted. This delegation of work was made on account of the considerable expense of traveling that would be saved thereby to the state. The jails in question were those of Lincoln county, (visited and reported upon by Hon. Myron

H. McCord, of Jenny), and Kewaunee county, (visited and described by Mr. F. Brunckhorst, of Kewaunee). The one exception noted above is the Green county jail, for the inspection of which arrangements had been made when the first sheets of this report went to press, but were frustrated by a succession of unforeseen accidents.

Besides the notes taken at the time of the board visitations, and which cover little more than the condition of the jails at the particular dates mentioned therein, an annual report of each jail is required to be made on the first day of November. As there is no legal penalty attendant upon the failure of sheriffs to send such reports, considerable difficulty is experienced in obtaining statistics in this way. The sheriffs of the following counties containing jails have failed to report anything whatever in relation to them: Columbia, Chippewa, Dodge, Dunn, Fond du Lac, Kenosha, La Crosse, Milwaukee and Waukesha. All the other counties in which there are jails have made reports, more or less complete, of the business of the year. In a few cases, only the number of prisoners remaining on the first of November, 1877, were reported. It is unfortunate that full reports cannot be obtained in every case, as it is only by complete statistics from the several counties that the true relations of the criminal classes to the state can be finally ascertained, and appropriate and practicable means be devised for arresting the growth of crime. It is to be hoped that the number of sheriffs who neglect or refuse to obey the requirements of the law in this respect will annually become less, until we shall be able to present to the people of Wisconsin a perfect description of the movement of population in each of the jails in the state.

The inherent vices of our present jail and prison system have been set forth so often, and with so little effect, in the previous reports of the board as to make the repetition a discouraging task.

That habitual and constitutional criminals should be permitted to mingle, in our jails, with young persons of unformed habits, with poor persons detained as witnesses, and with others merely seeking a night's shelter, to say nothing of the insane who are occasionally confined in such places, would appear to be flagrantly unreasonable and absurd, but it is the prevalent condition of affairs in Wisconsin. Arguments and detailed statements have been presented in these reports, year after year, and without any very marked success in the effort to obtain an adequate remedy. In the majority

of our county jails there are no facilities for the proper separation of the sexes, even, and for any further classification of prisoners there are no means worth speaking of in more than a dozen of all the jails in the state. It is doubtful, indeed, whether such additional classification is actually effected and regularly maintained in more than one or two.

The consequence of this neglect on the part of the counties must necessarily be the spreading of criminal ideas and practices, when they might, by the exercise of a better discretion, be restricted to a very considerable degree. It is with crime as it is with infectious diseases; its communication must be prevented, or it is liable to grow into the dimensions of a pestilence. It would be superfluous to go over the details of this subject at present, since the essential evil features pertaining to our present system of imprisonment, and the remedies which common sense would suggest for their removal, are discussed in several of our former reports, which are still accessible to those who desire to inquire into such matters. There is one atrocious practice, however, which has been condemned by us heretofore, but which circumstances compel us to speak of with more particularity now, and this is the placing of juvenile offenders in jail with hardened criminals.

In a recent visit to the Industrial School for Boys, at Waukesha, we found, on examination of the commitments, that in some counties the boys were taken on the same or the following day to that institution, while in others some time elapsed, and they were left in the jails greatly to their injury; but the most marked case is one which we cannot let pass without calling particular attention thereto. On the 7th day of April last, two boys were sentenced by the circuit judge in Brown county to the Industrial School, on conviction in said county for burglary and larceny. One of the boys was brought to the school by Daniel Lee, sheriff of said county, on the 16th day of April, nine days thereafter, and the other was brought by the same sheriff on the 25th day of April, seventeen days after sentence. Had we known of this occurrence at the time, we should certainly have called the Governor's attention thereto, and asked that some action be taken in the premises, and the question arises, ought not the Governor to exercise his prerogative and remove such a man from office?

Of the statistical tables relating to the jails, it seems necessary

to make a brief explanation. Table number one shows the date when most of the visits were made, the total number of inmates at the date of visitation, the number of inmates of the male sex, the number of insane, the comparative facilities for the separation of the sexes, and the character of the jail building. Table number two condenses from the annual reports of such sheriffs as have reported at all, the general statistics of the county jail, and is self-explanatory. Besides the reports there condensed, the sheriff of Waukesha county states that he sent a report to this office, but it has not been received. Table number three gives *of the whole number confined* during the year ending October 31, 1877, the number who were insane, the number of foreign birth, of foreign born parentage, of drunkards, and of those confined on sentence, as distinguished from persons merely detained for trial or otherwise, as well as the number of escapes and recaptures, and the whole number of days' board charged to the counties for prisoners. Many of these items are evidently reported incorrectly, but it has been thought best to give the figures of the reports sent to us in all cases, however incongruous they may appear.

According to the report from Jefferson county, all the prisoners received during the year remained until the first day of November, 1877, and in several of the sheriff's reports the totals of males and females, for instance, did not agree with the totals of prisoners confined. The column stating the number of prisoners confined by virtue of sentences is probably not reliable, as in many cases the sheriffs seemed to think that all the persons *confined* in their jails must have been *sentenced* also.

The column of escapes and recaptures is worthy of attention. Besides the thirty-seven escapes reported, we know of two prisoners escaping from the Milwaukee county jail and five from the Waukesha county jail, which are not there reported. Altogether it is probable that there have been fifty escapes during the year, of whom not more than about fifteen have been recaptured. Unfortunately, the persons who have thus escaped are criminals to whom escape was peculiarly desirable, but whom society had a very decided interest in bringing to condign punishment.

From the last column of table number two it will be seen that there were 46 insane persons remaining in the 44 jails from which reports are received on that subject. These figures include the 10

insane paupers of Greene county, who are kept in the county jail while awaiting the re-building of their poor-house which was burned last winter, and the 14 inmates of the Juneau and Manitowoc county jails, which combine the functions of jails and local insane asylums, though without much success in either direction.

The jails of Rock, Walworth and Winnebago counties were visited only by Rev. H. C. Tilton, whose very serious and continued illness for some months past has prevented his sending the notes made by him to this office, and we cannot, therefore, give dates of visitation in those cases.

TABLE No. 1,

Showing jail accommodations and jail population in the counties when visited by direction of the State Board.

COUNTIES.	Date of visit.	No. of inmates.	No. male inmates.	No. insane.	Facilities for separating prisoners.	Kind of building.
Adams	Sept. 21	....	....	....	.....	No jail.
Ashland	June 21	....	....	....	None .	Wood; 2 cells.
Barron	Sept. 22	....	....	....	.....	No jail.
Bayfield	June 22	....	....	....	None .	Wood; 2 cells.
Brown	Nov. 5	19	16	5	Good .	C. H. basement; 16 cells.
Buffalo	Aug. 8	1	1	....	Fair ..	Brick; 5 cells.
Burnett	Sept. 25	....	....	....	.....	Wood; 3 cells.
*Calumet	May 16	2	2	....	Fair ..	Stone; 6 cells.
*Chippewa	April 3	8	6	....	Good .	Stone; 23 cells.
Clark	Aug. 2	....	....	....	None .	Wood; 2 cells.
Columbia	Mar. 26	7	7	....	Good .	Stone; 14 cells.
Crawford	Aug. 28	3	3	....	Fair ..	C. H. bas., stone; 10 cells
Dane	June 6	10	10	4	Fair ..	Stone; 14 cells.
Dodge	May 7	3	3	....	Fair ..	Stone; 9 cells.
Door	May 25	2	2	1	None .	Wood; 4 cells.
Douglas	Aug. 3	....	....	....	Poor ..	Wood; 8 cells.
Dunn	April 2	7	7	....	Fair ..	Brick; 10 cells.
*Eau Claire	April 2	3	3	....	Poor ..	C. H. bas., stone; 4 cells.
Fond du Lac	May 26	11	10	7	Fair ..	Stone; 36 cells.

* Containing cell room of iron.

TABLE No. 1. — Accommodations and jail population — con.

COUNTIES.	Date of visit.	No. of inmates.	No. male inmates.	No. insane.	Facilities for separating prisoners.	Kind of building.
*Grant.....	July 6	8	7	2	Good	Stone; 18 cells.
*Green.....	.....	.....	.....	.....	Good	Stone; 10 cells.
*Green Lake.....	June 12	2	.....	2	Good	Stone; 8 cells.
*Iowa.....	Aug. 24	5	5	.....	Fair	Stone; 9 cells.
Jackson.....	April 4	4	4	.....	None	Wood; 3 cells.
*Jefferson.....	May 80	5	5	.....	Fair	Brick; 18 cells.
†Juneau.....	Mar. 27	10	7	6	Poor	Stone.
Kewasha.....	May 4	4	4	.....	None	Brick; 6 cells.
*Kewaunee.....	Oct. 31	.....	.....	.....	Fair	Brick; 6 cells.
La Crosse.....	Mar. 28	13	10	1	Fair	Stone; 18 cells.
La Fayette.....	Aug. 23	3	2	1	Poor	Stone; 4 cells.
Lincoln.....	Nov. 28	.....	.....	.....	None	Wood; 4 cells.
†Manitowoc.....	May 23	10	9	8	Poor	Brick; 7 cells.
Marathon.....	Nov. 22	.....	.....	.....	Poor	Wood; 2 cells.
Marquette.....	.....	.....	.....	.....	.....	No jail.
*Milwaukee.....	Sept. 1	18	15	2	Good	Brick; 19 cells.
Monroe.....	Mar. 27	6	6	.....	Fair	Brick and iron; 8 cells.
Oconto.....	May 25	1	1	.....	None	Wood; 9 cells.
Outagamie.....	May 17	1	1	.....	Fair	Stone; 8 cells.
Ozaukee.....	May 22	.....	.....	.....	None	Brick; 4 cells.
Pepin.....	Aug. 10	1	1	.....	None	Wood; 4 cells.
*Pierce.....	Aug. 7	.....	.....	.....	Fair	C. H. bas., brick; 4 cells.
Polk.....	Aug. 5	.....	.....	.....	None	1 cell in court house.
Portage.....	April 4	4	4	.....	Poor	C. H. bas., stone; 8 cells.
Racine.....	May 4	9	9	.....	Rep.	Brick; 24 cells.
Richland.....	Aug. 29	2	2	.....	Fair	Stone; 4 cells.
Rock.....	.....	.....	.....	.....	Good	Brick; 16 cells.
St. Croix.....	Mar. 31	8	8	.....	None	C. H. bas., stone; 7 cells.
Sauk.....	July 19	1	1	.....	Fair	Stone; 8 cells.
Shawano.....	Mar. 23	.....	.....	.....	None	Wood; 6 cells.
Sheboygan.....	May 23	2	2	.....	Fair	Brick; 12 cells.
Taylor.....	June 26	.....	.....	.....	None	Wood; 4 cells.
†Trempealeau.....	Sept. 27	.....	.....	.....	None	Stone; 2 cells.
Vernon.....	Aug. 27	3	3	.....	None	Wood; 5 cells.
Walworth.....	.....	.....	.....	.....	Poor	Brick; 10 cells.
Washington.....	May 14	4	4	.....	None	Wood; 5 cells.
Waukesha.....	Sept. 17	8	7	1	Poor	Stone; 8 cells.
Waupaca.....	June 18	2	2	.....	Good	Brick; 12 cells.
Waushara.....	.....	.....	.....	.....	.....	No jail.
Winnebago.....	.....	.....	.....	.....	Good	C. H. bas., stone.
Wood.....	June 20	2	2	.....	None	C. H. basement, wood and stone; 8 cells.

* Containing cell room of iron.

† Combination of jail and insane asylum. See detailed report.

‡ Village lock-up at Trempealeau is the only place of detention in the county.

TABLE No. 2.

General statistics of jail populations during the year ending October 31, 1877, so far as reported by sheriffs.

COUNTIES.	Number confined November 1, 1876.	Number rec'd during the year.	Number remaining November 1, 1877.	Whole number of males.	Whole number of females.	Whole number over 40 years old.	Whole number under 20 years old.	Number insane Nov. 1, 1877.
Ashland		5		5				
Bayfield		5		5				
Brown	9	131	19	119	12	15	15	5
Buffalo	1	9		9	1	2		
Calumet	5	10	1	8	2	2	3	
Clark			2					
Crawford	4	205	4	203	2	20	36	
Dane	12	336		328	20	3	1	3
Door		9	1	9		3	1	
Eau Claire	1	61	3	60	1			
Grant		36	5	34	2	2	7	3
Green		65		60	5	7	30	10
Green Lake	2	17	10	16	3	2		3
Iowa	1	14	2	13	1		3	
Jackson	2	21		23		4	1	
Jefferson	9	198	207	201	6	47	5	2
Juneau	8	25	4	22	3	8	3	6
La Fayette	1	13	4	13	1	7		
Lincoln	4	4		8				
Manitowoc	8	23	8	20	11	3	1	3
Marathon		7		7			2	
Monroe	1	65	4	61	5	8	10	1
Oconto	6	2	1	5	1	2	1	
Outagamie	2	44	12	36	8	2		4
Ozaukee		19	1	17	2	1	1	
Pepin			1					
Pierce			2					
Polk			1					
Portage	5	45	2	44	1	4	1	
Racine	7	206	8	201	5	30	23	
Richland	1	5		6		2	1	
Rock	12	700	20	693	7	2	1	
St. Croix	6	19	8	25		1		
Sauk	4	32	3	32		13	4	
Shawano			1					
Sheboygan	5	36		36		7	2	
Taylor		10		8	2			
Vernon	1	38	1	36	3	8	4	
Walworth	3	67	6	65	2	10	14	
Washington	3	37	3	36	1	4	6	1
Waupaca		13	3	11	2		3	
Winnebago	7	156	6	146	10	17	9	
Wood	1	14		13	3	2		
Total	131	2,693	*146	2,633	122	237	188	46

* Jefferson county is omitted from this total.

TABLE No. 3.

Showing statistics of whole number confined in county jails during the year ending October 31, 1877, so far as reported by sheriffs.

COUNTIES.	Number insane.	Number foreign born.	Natives, of foreign parentage.	Number escaped.	Number recaptured.	Number drunkards.	Number confined on sentence.	No. days' board charged to county.
Ashland.....		3	2			2	5	880
Bayfield	1			1	1	4	5	25
Brown	6	69	31			52	46	1,174
Buffalo.....	2	8	1				9	
Calumet.....						1	4	
Crawford.....		69		6	2	90	33	183
Dane.....	17	116	118			16	90	4,206
Door.....	2	9					7	70
Eau Claire	3			3	2		62	1,300
Grant.....	2					34		1,580
Green.....	19	20				47	9	350
Green Lake.....	3	4	2			3	7	1,786
Iowa.....		1	5	1	1	15	1	1,278
Jackson.....	1	9	6	9		2	6	267
Jefferson.....	7	50	58	1		50	207	3,443
Juneau.....	7	9				6	13	2,861
La Fayette.....	4	10	8			3	10	846
Lincoln.....	1	1				2		8
Manitowoc.....	14	28	1			1	6	
Marathon.....		5					8	163
Monroe.....	3	35	1			16	61	1,764
Oconto.....		6	1	3		1	1	
Outagamie.....	9	18	12			8	40	1,276
Ozaukee.....	5	11	8				7	229
Portage.....	1	41	9			50	33	
Racine.....	2	109	35	1		68	211	2,500
Richland.....	1	1	1			1	1	590
Rock.....	2			2	1		75	797
St. Croix.....	1	7		4	3		8	1,784
Sauk.....		18	3	1		2	10	863
Sheboygan.....		19	17			10	36	1,025
Taylor.....	1	1		1	1	10		
Vernon.....	8	14	3			1	39	
Walworth.....		31	36			13	35	1,812
Washington.....	2	18	10	1		4	2	890
Waupaca.....	1	3					6	134
Winnebago.....	3	16		3		55	60	1,859
Wood.....		8				2	7	190
Total.....	123	743	358	87	11	567	1,159	.....

RECORD OF VISITATIONS.

ADAMS COUNTY has no jail. Prisoners from this county are usually sent to the Columbia county jail at Portage, or to the Juneau county jail at Mauston. H. A. Merriman, sheriff.

ASHLAND COUNTY JAIL, Ashland. Visited June 21.

No inmates at time of visit.

The building is a small one, built of hewn timber and contains 2 cells with a day room in front.

It is used as a lock-up for disorderly characters principally. B. F. Sparks, sheriff.

BARRON COUNTY has no jail. Prisoners are sent to Chippewa county. A. J. Barton, sheriff.

BAYFIELD COUNTY JAIL, Bayfield. Visited June 22.

No inmates at time of visit.

This jail is a small wooden building 16 by 20 feet inside, and with two cells arranged like the Ashland jail. There are two heavily grated windows in front, and a window 8 by 14 inches at the back of each cell. The latter are barred but have no glass. There are also heavily barred air-holes in the cell doors. There are two bunks for sleeping in one cell, and one in the other. The walls and partitions are of 2 by 6 inch pine timber spiked together.

H. H. Picard, the sheriff, has gone elsewhere to live, and the place is filled by D. J. Cooper, under-sheriff.

BROWN COUNTY JAIL, Green Bay, visited November 5.

Number of inmates, 19, of whom 16 are males; and the 3 females and 2 of the males are insane.

The jail occupies the stone basement of the county court house, and contains 16 cells, 10½ feet by 5, with high ceilings. Its general condition does not call for special criticism or commendation.

Of the 131 persons confined here during the year ending November 1, 1877, 13 males were under 20 years of age, and of these, 7 were under 15 years old, 2 were 15, 2 were 16, and 2 were 19 years old. Two were aged respectively 16 and 19 years. Of the whole number, 40 males and 2 females were between 20 and 30 years of age.

Daniel Lee, sheriff.

BUFFALO COUNTY JAIL, Alma, visited August 8.

One inmate at the time of the visit.

This jail is back of the court house, and has walls of stone two feet thick. Its windows are large, and accessible from the ground, but the building is enclosed by a close, high, wooden fence. The jail has brick floors, and an oak door two inches thick, covered with pine one inch thick. The casings are of oak, 4 by 8 inches. The foundation is of natural solid rock.

There are two corridors, one having four cells, the other, one cell.

Corn-husk beds with pillows, but no sheets nor pillow-cases.

The county pays fifty cents a day for board of prisoners, and \$1.50 a year additional for janitor's services.

John Buehler, sheriff. Henry Ginzler, deputy sheriff and jailor.

BURNETT COUNTY JAIL, Grantsburg, visited September 25.

No inmates on the day of visit, nor since last fall.

The building is 16 by 24 feet inside, and is constructed of sawed timbers about 6 inches square. It has 3 cells, about 7 by 5 feet, with partitions of timber, 5 by 8 inches. There are no windows in the cells, but they are pretty well ventilated by cracks between the timbers. In front are two windows, each containing a sash of six (10 by 12 inch) panes of glass, and covered with a grating of two horizontal and three perpendicular bars of iron. The backs of the cells are lined with iron. The ceiling and floor are of oak plank, 4 inches thick.

The jail was very filthy, and had no outside inclosure. The cracks between the timbers are partly filled with plaster.

The county pays \$4 a week for board of prisoners.

Oliver Oleson, sheriff; Ole Anderson, under sheriff.

CALUMET COUNTY JAIL, Chilton, visited May 16.

Number of inmates, 2.

This is a new jail, completed last October. It is a one story stone building, attached to the residence (wooden) of the sheriff. The cell room is of iron, except the floors and outer walls, which are of stone. There are three cells on each side of the corridor, double bunked, and surrounded with iron grating. Each cell is 5 by 7 feet, and communication between the two corridors may be shut off.

Water is not very plentiful. Underclothing and sheets are washed weekly.

The privy vault is drained by a sewer, which is flushed by rain water from the roof.

The prisoners have the same fare as the sheriff's family, and sleep in comfortable beds. There is a closet seat in each cell.

The first commitment to this jail was made August 21, 1876, since which time there have been 20 commitments on the following charges: murder, 5; assault with intent to kill, 1; rape, 1; larceny, 9; assault and battery, 3; accessory to murder, 1. The two prisoners now here are confined on charges of grand larceny and rape, respectively.

The county pays fifty cents a day for board of prisoners. Anton Miesen, sheriff.

CHIPPEWA COUNTY JAIL, Chippewa Falls, visited April 3, and Aug. 14.

Number of inmates at time of first visit, eight, including one woman and her daughter, nine years old.

The jail was built in 1875, and is 32 by 38 feet in size. It contains two tiers of iron cells on each side, separated from the outer walls by an iron grating. There are five cells in each tier, making twenty in all, each cell having two beds. This arrangement divides the male department into four wards, with a water closet in each.

The cells were found clean and furnished fairly with bedding. It is used as a lock-up for the city as well as for jail purposes.

The residence of the sheriff, which is connected with the jail, contains a ward for women, consisting of three double bedded cells, and a corridor, all being floored and ceiled with iron. All the rooms are warmed by a furnace in the basement, which is insufficient for its purpose.

Water seems to be furnished liberally, but has to be carried into the building. Prisoners are obliged to wash at least once a day, and underclothing is washed every week. The place is not entirely free from vermin, but has no more of them than would naturally be expected from the use of the jail as a lock-up.

Both closet pipes have burst, but arrangements have been made for their repair. Seventeen covered buckets are kept and are found sufficient for daily and nightly use.

Each bed is furnished with straw ticks, pillows and blankets, but with no sheets or pillow-cases.

All the prisoners now here are said to have owed their incarceration to connection with brothels. Four are undergoing sentences of from 5 to 30 days, for disorderly conduct, and the others are awaiting trial for grand larceny, drunkenness, and keeping houses of ill fame, respectively, the last case being that of the female inmate.

The jail register is but just received, and does not contain any facts of interest yet.

Frederick Hoenig, sheriff; John Bernet, jailor.

CLARK COUNTY JAIL, Neillsville. Visited August 2.

No inmates at time of visit.

The jail is a mere shed, built of 2 by 8 inch plank, spiked together, and contains two cells with one window each. The outer room has two windows, grated on the outside, and with perforated covers of boiler iron on the inside. When the outer door is closed, light and air are pretty effectually shut off.

The general condition of the jail is filthy and squalid. There are two beds on the floor, and very dirty.

When prisoners are detained here their meals are furnished from a hotel at 90 cents a day, and nothing farther is charged for care of them, as a general thing.

T. B. Philpott, sheriff; J. W. Tolford, under-sheriff. No jailor.

CRAWFORD COUNTY JAIL, Prairie du Chien. Visited August 28.
Number of inmates, 3.

The windows of this jail (which occupies the basement of the court house) are easily accessible from the outside, being less than two feet above the surface of the ground. Instruments and material for assisting prisoners to escape have been handed in twice since last May.

On Saturday night, August 25, two prisoners escaped by making a hole through the ceiling, back of the cells, and climbing up into the grand jury room and, thence, out through a window. While the work of cutting the hole was in progress, it was covered in the day time by a piece of sheeting pasted over it, which could not be distinguished from the plastering in the dim light of the rear corridor.

There is a room with two compartments in the court house for female prisoners.

Water has to be brought into the cell-room generally, but bathing facilities are furnished as required, the water being supplied by a spout extending from the well through one of the windows.

The beds are furnished with sheets and pillow cases, which are washed every week. The cells are not well ventilated, being situated below the surface of the ground.

Four prisoners escaped in June last by digging a staple out of the casing of the door, opening on the corridor. There have been 130 tramps confined here for short periods, since the 1st of January. During the year 1876, there were confined on charges of drunkenness and disorderly conduct, 36; vagrancy, 43; assault, with intent to kill, 2; assault and battery, 6; adultery, 2; petit larceny, 8; burglary, 3; robbery, 2; and one each on charges of grand larceny, arson, incest, incorrigibility, indecent exposure, escape from jail, wife beating, and insanity. One person was detained as a witness.

W. B. Hunt is the sheriff, but the under-sheriff, John B. Davis, and deputy F. G. Bronson have the more immediate charge of the jail.

COLUMBIA COUNTY JAIL, Portage. Visited March 26.

Number of inmates, 7. During the year 1876 there were 70 commitments for drunkenness and vagrancy.

No women are allowed in the general cell room.

Drainage is tolerably good; but ventilation is very poor in the cells. Water is plentiful, but there are no bath tubs.

The iniquity of our jail system finds some illustration here. One young man was confined five months, after which he was tried and sentenced for six months longer, making eleven months of enforced idleness in company with criminals. Another young man was kept here six months for selling cigars on the fair ground one day without a city license! Others, for serious offenses, have been sentenced to ten and fifteen days' imprisonment. The sheriff thinks that some city justices send professionals for short terms so that they can have early opportunity of repeating the operation and thus increase the fees of the court.

Sheriff A. H. Russell has a turnkey to assist him in the general care of the jail.

DANE COUNTY JAIL, Madison. Visited June 6, 1877.

Number of inmates at the above date, 10; of whom 4 are insane. All are males.

No important changes have been made in the general arrangement of the jail since last year. The premises are in cleanly condition.

The night slops are emptied into a privy vault twice a day. There is no sewerage nor ventilation of cells worth speaking of. Water has to be brought into the cell room.

The sleeping arrangements are fair, and the general management of the place appears to be good.

The commitments for 1876, were: for vagrancy, 202; drunkenness, 88; larceny, 36; assault, 25; insanity, 15; disorderly, 5; swindling, 5; burglary, 7; bastardy, prostitution, and adultery, each 2; murder, 3; and opening mail, selling mortgaged property, perjury, and nuisance, each 1, and one person detained as a witness.

Sheriff, Wm. Charlton. Isaac Van Wie, jailer, is assisted by T. Crampton, turnkey; \$3.50 per week is paid for board of prisoners (reduced to \$3.00 at November meeting of county board of supervisors).

DODGE COUNTY JAIL, Juneau. Visited May 7.

There were three inmates at this date, all held on charge of larceny. The premises were clean and well kept, but the jail is one of the least secure in the state, and the attention of the county board is again called to this fact. Fortunately only one prisoner escaped during last year.

Since January 1, there had been 3 commitments for vagrancy, 13 for larceny, 1 for counterfeiting, and 1 for attempt to ravish.

Jacob Bodden, sheriff.

DOOR COUNTY JAIL, Sturgeon Bay. Visited May 25.

Contains 2 inmates at this date, 1 of whom is insane and otherwise ill.

This jail is a one story building constructed of hewn logs clapboarded on the outside and whitewashed inside, with plank floors and board partitions. A hall-way about 6 feet wide divides the house, and on each side of this hall-way are two cells, one of which is now occupied by a sick insane man, the other inmate sleeping at the jailer's house, a considerable distance away.

The whole edifice is about 16 by 18 feet in dimension, and has no facilities whatever for comfort or cleanliness,—not even a privy. There is no well on the premises, nor water except what is brought

there. The windows are small and grated, and are left open at this season. The structure is utterly unfit for its purpose.

The sick man spoken of above is alone, except when visited by the jailer, who says he calls "several times a day." The inmate is suffering from a bloody dysentery, and is to be sent to the Northern Hospital for the Insane if he recovers. \$3.50 is the price per week charged for board of prisoners.

David Houle, sheriff; Clayton L. Hayley, under sheriff.

DOUGLAS COUNTY JAIL, Superior, visited August 3.

The jail building is constructed of 2 by 6 inch pine scantling spiked together, and contains 4 cells fronting on middle corridor in each of 2 stories.

There is a small grated window to each cell, and two windows above and two below in the corridors. The opening of these windows makes good ventilation, which is not otherwise obtained. The outer door of the building is lined with iron. One dollar a day is charged for board of prisoners when there are any here.

Victor Desanville, sheriff; J. F. Bischoff, under-sheriff.

DUNN COUNTY JAIL, Menomonie. Visited April 2.

Seven inmates at this date, of whom one is an imbecile pauper. All males.

The building is of brick, two stories, the lower portion being used as a residence for the jailor, and the upper rooms for purposes of confinement. There are eight cells of small size and two larger ones, the latter having room for six persons each. The small single cells are lined with boiler iron, with grated doors, permitting a liberal supply of light and air. At the ends of the cells are closed recesses for night buckets.

When women are placed here, they occupy one of the large cells, and are tolerably well separated from the other prisoners.

There are no pumps accessible to the prisoners, and water has to be brought up stairs. Prisoners wishing to bathe have provision made in the basement. Slops are carried out in the buckets. No vermin visible at present.

The small cells are furnished with iron bedsteads, which have worn-out husk beds, but no sheets. There is matting on the floors, on account of the noise of walking. The large cells are comfortably furnished, and the prisoners report that the fare is plentiful and good.

There has been no escape from this jail up to the present time, and with reasonably good oversight it does not seem likely that there will be.

The present inmates are the imbecile first mentioned, sentenced to 90 days imprisonment for vagrancy, and another to 60 days for larceny. Two are held for non-payment of fines, one in default of bail, and the others are awaiting trial.

During 1876, there were committed for larceny, 23; drunkenness, 23; assault and battery, 6; assault with intent to kill, 2; vagrancy, 2; obtaining money under false pretenses, 2, and arson, 1. Four were insane, and one imprisoned for contempt of court. There were 14 convictions, including default of fines, and sentences of short terms.

The price paid by the county for the board of prisoners is \$4 a week.

Sheriff, C. W. Moore; under-sheriff in charge of jail, G. W. Bailey.

EAU CLAIRE COUNTY JAIL, Eau Claire. Visited April 2.

Number of inmates, 3, all males.

This jail is comprised in one room in the basement of the stone court house. A cage of iron grating in the middle of the room contains 4 double-bedded cells, with a corridor surrounding the latter on all sides. The cells are of boiler iron, with grated doors, about 8 feet high and 8 feet by 6 or 7 on the floor. The outer corridor has a wooden floor and plastered walls, with grated windows.

A room in the second story of the court house is used for women, when needed. This room has no grates nor bars.

There has been no attempt to escape from this jail since last fall, when six tramps got away through a window.

Water has to be carried into the cell room for prisoners' use. They are required to wash themselves daily, and to bathe when they need it. Underclothing is washed weekly.

The heating arrangements appear to be tolerably good, but there is no ventilation worth noticing, except when windows can be raised. Each cell is furnished with a covered bucket, which has to be carried out of the building. No vermin at this time.

The beds and pillows are filled with straw, and blankets are furnished, but no sheets. The prisoners report the fare as good. Books and cards are allowed in the jail, but no work is given ex-

cept rarely, in the way of "chores." The commitments for 1876, were, for larceny, 12; vagrancy, 14; assault and battery, 4; insanity, 2; selling liquor unlawfully, 3; and one each for obstructing railroad track, murder, highway robbery, assault with intent to kill, and polygamy. Of these cases, 8 were fined, 7 sentenced to imprisonment, 3 found not guilty, and 3 (including the one accused of murder), released on bail.

The sum of \$3.75 per week is paid by the county for the board of prisoners.

Geo. D. Daniels, sheriff; I. Cook, under-sheriff; Peter Hart, turn-key.

CITY CALABOOSE, Eau Claire. Visited April 2.

One inmate at this date.

This lock-up occupies a part of the basement of the city building, and comprises five cells on the side next to the street, but with doors opening into the main part of the basement, where the heating furnace is situated. Three of the cells have doors of iron grating; the other two of wood solidly put together. The cells are divided by wooden partitions, and have small grated air holes next to the main room. The street wall is of stone.

Lice and other vermin are sufficiently plentiful.

There is a bed in each cell, with straw tick and blanket.

This place is used for the imprisonment of violators of city ordinances. There is also a small place of detention on the west side of the river, with two cells, which is used occasionally to hold offenders over night, for bringing before the municipal court in the morning.

FOND DU LAC COUNTY JAIL, Fond du Lac. Visited May 29.

This jail was visited also by Mr. Tilton, of the State Board, early in the summer, and his notes were to have been used here, but are not at hand, owing to his severe illness. The notes taken at the date above given are wanting in fullness for this reason.

The building is a large one, of stone, and contains 36 cells, pretty well ventilated, and more than ordinarily strong.

Water is pumped into the jail from a good cistern, and especial attention appears to be given to cleanliness.

At the above mentioned date there were eleven inmates, including seven insane, of whom two were females. From the newspa-

pers, we learn that an attempt at escape was nearly successful in September, the prisoners having sawed their way almost out when the alarm was given by an insane inmate.

H. R. Hill, sheriff; O. R. Bloom, jailer. At the fall election of 1877, Col. Edward Colman was elected sheriff.

The county pays \$4 a week for board of prisoners.

CITY LOCK-UP, Fond du Lac. Visited May 29.

This little stone building is still dirty and odorous, as in former years. It contains ten cells, each with a bare wooden bench for a couch, and plank floors saturated with vile liquids.

GRANT COUNTY JAIL, Lancaster. Visited July 6.

Number of inmates, eight, of whom one is a female, and two insane (males).

This is probably the best constructed jail in the state, except that it has no facilities for the observation of prisoners from outside of the cell room. It has been described very fully in previous reports of this board.

The sexes are completely separated, a room with six beds being provided for female prisoners.

Water is pumped directly into the jail, but does not seem to have been used with much liberality. The floors and bedding were extremely dirty at the time of our visit. No sheets or pillow cases are provided.

The sewer pipes lead to a cess pool in the garden, which is said to have a sand bottom, allowing sewage to pass off into the soil. Filtered rain water is used at the jail (and generally in the village) for drinking. The inmates report good fare and good treatment.

The commitments for 1876 were for grand larceny 5, burglary 3, vagrancy 2, and one each for passing counterfeit money, violation of license law, assault and battery, larceny and insanity.

For the first six months of 1877 there were committed for grand larceny 3, drunkenness 3, larceny 4, and one each for burglary, violation of license law, vagrancy, adultery, assault with intent to kill, murder, and forgery. The prisoner accused of assault with intent to kill is said to have been insane for years, and the one accused of murder is probably insane also.

The county pays \$4 a week for board of prisoners. Matthew Birchard, sheriff; Ora Richards, deputy in charge of jail.

GREEN COUNTY JAIL, Monroe.

This jail was not visited during the year 1877. It has been used chiefly for the accommodation of the insane of the county, since the burning of the county poor house, last winter. It is a very convenient and safe place of detention. The most essential items of the sheriff's annual report will be found in the tables preceding the record of visitations.

F. R. Studley, sheriff.

GREEN LAKE COUNTY JAIL, Dartford. Visited June 12.

The inmates were two insane women, one of whom had been here for three and a half, and the other for one and a half years.

The jail contains one ward 26 by 16 feet, with latticed iron bars in front, and partition of iron plate. The cells are 8 feet by 9. Women are confined in a room above the male ward, and separate. Everything in and about the jail was found in good condition. David M. Green, sheriff.

IOWA COUNTY JAIL, Dodgeville, visited August 24.

Five inmates at this date, all males.

The building is of stone, 2 stories, with two tiers of cells, 2 on each of the two sides of each tier, of iron, in male department. A corridor surrounds the cells. There is a separate room for women, which has at present only an ordinary pine door, but a heavy oaken one is in readiness to be hung when needed. The room is now used as a sleeping apartment for the family.

The drinking water is taken, unfiltered, from a cistern, and is execrable even for purposes of washing.

The privy-closet on each floor receives the contents of the wash basins, which seem insufficient to accomplish the end in view, however. Ventilation is scantily furnished by air-shafts with small perforations.

There are no sheets or pillows on the beds. The bed frames are of iron, 1 to each cell, fastened to wall by hinges.

The windows are in good shape, and on the whole the jail is a comparatively good one for a rural county. If the water supply were of good quality and within reach, and the sleeping appointments of better character, there would be nothing here calling for severe criticism.

Three dollars and a half per week is the price paid for board of prisoners.

Thomas Kennedy, sheriff; Charles Bilkey, under-sheriff.

CITY LOCK-UP, Mineral Point. Visited August 24.

This consists of one cell about 12 by 14 feet, in the city hall building. It is lined with iron, except the top of the room, which is of hewn timbers. Light is admitted through a narrow grated window. Door of solid oak.

A stove warms the place in winter, and a comfortable bed is provided.

The lock-up is used only for purposes of temporary confinement, as is implied by its name.

There were no inmates at the above date.

JACKSON COUNTY JAIL, Black River Falls. Visited April 4.

Four inmates, all males, at the date of the visit.

The building is one story high and its walls are constructed of plank laid flat and spiked together.

Inside there is a room about 16 by 18 feet with two grated windows. This room occupies about two-thirds of the entire jail, the remaining one-third comprising 2 unfurnished cells, about 5 feet by 9, with wooden floors, plastered walls, strong wooden doors, and a small grated window to each cell.

Prisoners who are confined here generally escape within a short time; but the officials were surprised a few weeks ago, to find one, who had been shut up by himself over night, dead, on the floor, in the morning. It was supposed that he died in a fit. Five others have been registered as prisoners during the current year, and of these, four have escaped, and the other procured bail. Ordinarily the jail is only used as a place of temporary detention, but it is to be feared that criminals are sometimes placed here in the hope that they will escape and leave the county, thus entailing the burden of punishment upon some other locality, after the committal of further offenses.

Of the four prisoners confined at the time of the visit, two had been arrested for drunkenness and held over night to be discharged in the morning without trial, on their promise to leave town, and the others were taken out for trial on petty accusations, during the visit of inspection.

When the county officials are really desirous of detaining a prisoner he is sent to the jail at Sparta.

Board of prisoners confined here is paid for at the rate of \$4 a week.

Almon Shaver, sheriff; Elias Homestadt, under-sheriff.

JEFFERSON COUNTY JAIL, Jefferson, visited May 30.

There were five inmates at the time of the visit. No woman has been committed during the present year.

All the appointments of this jail are good except the heating apparatus. The orifices of the hot air shafts are at the top of the room, and cold feet among the prisoners are the consequent result.

Facilities for bathing and washing are provided with more liberality here, proportionally, than in almost any other county institution in the state.

The ventilation in the lower tiers of cells is very good, and quite tolerable in the upper tiers. The closet pipes are easily flushed and kept in order.

The beds are of straw, on iron cots, and are furnished with good blankets. The table fare is about what it ought to be, and altogether the jail is one of the best in the state.

The commitments for 1876, were: for burglary, 6; vagrancy, 29; larceny, 8; assault and battery, 6; swindling, 3; threats, 3; 2 each for obtaining money under false pretenses, seduction, rape and insanity, and 1 each for bastardy, adultery, and keeping a gambling house. Two persons were detained as witnesses. Of the whole number, three were sent here by the circuit court, two (insane) by the county court, and the others by justices of the peace. The county paid \$4 a week for board of prisoners last year.

Earl Newton, sheriff; P. W. Hibbard, deputy in charge.

JUNEAU COUNTY JAIL. Mauston. Visited March 27.

There are ten inmates, of whom 6 are insane; and of the latter, 3 are women.

There has been no essential change for the better in the condition of the building and premises since our last report, and it still remains a very poor receptacle for the insane or for criminals.

The male insane are confined in a room together, but the females are less restricted, and one of the latter is employed as a domestic

in the kitchen. The room designed for women in the jail proper is unoccupied.

Plenty of water is furnished to the prisoners, who bathe once a week, it is said by the officers, and have their underclothing washed every week. There are woolen blankets on the beds, but no sheets. Bed bugs are numerous in the jail department, and find ample retiring room in the cracks of the walls. There is no ventilation for the closets, except through the hall-ways. The sewage from the closets is washed into a covered cesspool by water from the eaves of the building.

Reading matter is furnished to the inmates, who appear to be kept as comfortable as is possible with the facilities at hand.

One prisoner is here awaiting trial from Adams county, who was sent here last October, charged with murder. The court before which he is to be tried does not sit until June.

Sheriff, J. W. Tarbox, whose family reside with him in the building, and assists in the care of the insane; turnkey, A. J. Haire.

KENOSHA COUNTY JAIL, Kenosha. Visited May 4.

Four inmates at this date, all males.

Considerable improvement has been made in this institution since our last visit. A new well has been dug, and the rooms are thoroughly whitewashed and cleaned up.

Only one woman has been imprisoned here this year, and she only for one night. There is no separate room for women.

Hard and soft water is supplied twice a day, and laundering for the prisoners is done every week. The latter are required to keep the jail clean. Buckets are used for closet purposes, and emptied into a vault without sewerage. The beds are of straw, with pillows and sheets, and the prisoners report themselves satisfied with their fare.

Drainage is needed, and might be obtained easily. The wooden floors and partitions of the jail are in a dilapidated condition.

During 1876 there were 194 commitments, which are not all distinctly defined on the register, but we gather that 120 were charged with being drunk and disorderly, 21 with larceny, 7 with assault and battery, 1 with murder, and the rest with minor offenses.

Hugh McDaniels, sheriff, lives in the building with his family, his son William holding the position of under-sheriff.

KEWAUNEE COUNTY JAIL, Kewaunee, described by F. Brunckhorst, Esq.

The Kewaunee county jail is connected with the sheriff's residence, and both are built of brick.

Dimensions of the residence, 34 feet 3 inches, by 26 feet 6 inches; 2 stories high, with cellar beneath. Height of first story, 9½ feet; of second, 8½ feet. The roof is shingled.

The jail is 25 feet 7 inches by 26 feet 2 inches; one story; metal roof. It has 6 cells, each 5 by 7 feet, and 8 feet high, and 3 day rooms, 2 of them 5 feet wide, and the other, 6 feet 6 inches. The floor is of Joliet limestone, 6 inches thick, in flags not less than 5 by 6. The walls, floor and ceiling are lined with one-fourth inch iron, and the cells are made of iron three-sixteenths of an inch in thickness.

The day rooms and cells are well ventilated, and warmed by 2 stoves. There are 6 windows, which are protected by double rows of steel bars one inch in diameter.

All the doors are of wrought iron, and secured with Sargent's jail locks and lock bars. Each cell is provided with an iron bedstead. There are 2 privy vaults, connected with 9 inch sewer pipe. The whole cost of the jail and sheriff's house, including the iron bedsteads, was about \$6,600.

LA CROSSE COUNTY JAIL, La Crosse, visited March 28.

Number of inmates, 13, of whom 3 are women, and 1 an insane man.

This is a two story stone building, in the rear of the court house, and has been pretty fully described in previous reports. It is supplied with water from a well half way between the two buildings. The roof is leaky. Light is supplied scantily by 2 windows on each side, with iron shutters. All the cells are accessible from the main corridor, except the women's rooms, which consist of 2 double bedded cells and a day room. There 16 cells in the male department; have no ventilation, except through the windows, the sills of which are 12 or 15 feet above the floor.

There has been one death of an inmate during the past year — a woman who set fire to clothing and died from the effects of the burns.

One woman who is confined here has her child, 3 months old, with her. They were brought here seven weeks ago.

Water is said by the officers to be furnished when asked for, but the prisoners report it as difficult to obtain. The water in the well is so scanty that every bucketful drawn up contains sand and sediment. All the water used has to be carried into the cell room.

The closet, having a stone seat with 2 openings, is on the main corridor, and the excrement is now nearly to the level of the top of the scat. It is said that it runs over the top occasionally. In the winter hot water is poured in to clean the pipes.

The beds are of straw or husks, on wooden frames, and without sheets or pillows, except in one case where there is a decent bed with such a bedstead as is usual in many private houses. The general diet is said by the sheriff to be the same used by his own family, including coffee at breakfast, tea at supper, and meat twice a day.

There is a scupper at the outside of the lower floor for taking the washings of the jail into the main sewer — an arrangement which would not seem conducive to general healthfulness. As the city calaboose is not used at present, from 3 to 5 tramps and "disorderlies" are kept here every night, making body vermin too prevalent to admit of a comfortable state of mind in a visitor, even. There is a prisoner here whose nose is nearly eaten off with syphilis, and who broke his leg some time ago while hurrying to get his share of food. His time of sentence expired some months ago, but he has been kept here because of the difficulty of removing him. He is unable to leave his bed, and is covered with vermin. On this subject see report of La Crosse city poor-house. H. S. Phillips, sheriff, receives \$3.50 a week for board of prisoners.

LA FAYETTE COUNTY JAIL, Darlington. Visited August 23.

Number of inmates, 3, of whom one is a woman, and one man is insane.

There are two apartments, or wards, in each of the two stories of the building, which is constructed of stone. Each apartment consists of a day room and a sleeping room containing two beds. There is no ventilation in the inner room, except through the grated doors. The day rooms have a window on one side, and a grated door opening on the general corridor, on the other. One of the apartments is built of scantling spiked together, and its window is double barred.

The sexes may be separated by placing the women in the upper

cells, but the female now here occupies a lower room and has the liberty of the corridor. The living rooms of the sheriff are so scanty that one of the upper compartments of the jail is used as a family sleeping room, and the other as a store room.

There is a good cistern and a fine well, 65 feet deep, drilled through the limestone rock. The privy vault is between 15 and 20 feet deep, reaching down to the surface of the rock. Slops are thrown into this vault.

The beds are fairly comfortable, and each is furnished with a sheet, pillow and pillow case. The bed occupied by the woman has two sheets. More room is needed in the residence part of the building in order to have any effectual classification of the prisoners in the jail.

The jail yard is enclosed with a stone wall, fourteen feet high. It is not used for purposes of exercise. No register of statistics was kept during 1876. The county is charged 75 cents a day for board of prisoners.

Add. A. Townsend, sheriff, lives in the building with his family, and the under-sheriff, A. E. Cone, and a deputy, are within call.

LINCOLN COUNTY JAIL, Jenny. Described by Hon. M. H. McCord.

The jail at this place is a small building, 16 by 24 feet, with walls of 2-inch plank, 8 inches wide and 16 feet long, spiked together solidly with 60-penny nails.

There are 4 rooms about 7 feet square inside, with a hall through the middle of the building 7 feet wide and running from the front door to the rear. There is a good stove in this hall, and the cell doors opening upon it are made of grated iron bars. The rooms are thus easily warmed.

There are no occupants and never have been any except an occasional drunken Indian sleeping off his debauch. The building is sided with clapboards and painted. It has a good shingled roof and is in every way safe and comfortable. Sheriff, J. J. Adams.

MANITOWOC COUNTY JAIL, Manitowoc. Visited May 23.

Ten inmates at this date, of whom 8 are insane, and the others awaiting trial. One of the insane is a female.

The jail comprises a part of the lower story of the court house, and consists of a corridor with 4 cells on one side and 2 on the

other. The cells contain 10 beds. There is also a cell opening on the same corridor, but separated by a dividing iron door. In this cell the insane woman is confined. A room above is also sometimes used for women.

The floors are of wood, and most of the walls plastered. Some of the latter are board partitions, whitewashed over.

Plenty of water is furnished to the inmates, and laundering is done weekly in summer and twice a week in winter. There is a calico sheet on each bed.

There is no sewerage from the privy vaults. The walls of the jail need whitewashing. There is no ventilation except through doors and windows.

One epileptic is among the insane, and is subject to frequent and violent fits. Two of the insane work outside a portion of the time, and are, therefore, comparatively comfortable; but the jail is in no respect fitted for a local insane asylum, for which it is principally used.

The sheriff not being at his office at the time of the visit, we were not able to consult the jail record for statistical information. The county is charged at the rate of \$5 a week for the insane and \$3.50 for other inmates. Peter Mulholland, sheriff; Charles Krumm, jailer.

MILWAUKEE COUNTY JAIL, Milwaukee. Visited September 1.

There are 18 inmates, including 3 women, one of the latter being insane.

This jail has been visited several times during the year by members and the secretary of the board, and we are pleased to be able to report very noticeable improvements over its condition last year. Women are now confined in the separate room provided for them, instead of being placed in the wards with men, and the heating arrangements and sewer pipes have been put in better shape.

There are 18 cells besides the woman's room, and they are frequently crowded. Two of the prisoners escaped last night, by sawing one end of a bar over a window, wrenching it aside and crawling through the orifice thus widened to 7 inches across and 14 inches high. One of the escaping prisoners was Dennett, confined on a charge of murder, and the other a burglar.

Three children, aged 15, 12, and 11 years, are serving sentences of 30, 20, and 5 days, respectively, for breaking some of

the limbs of a butternut tree while gathering nuts on another person's land. The technical accusation was that of destroying property, and the boys were sentenced by E. C. Smith, justice of the peace in the town of Wauwatosa.

The women's room contains Mrs. Willner, the insane homicide; Mrs. Dennett, arrested on the charge of assisting her husband to escape, and a young woman sentenced for prostitution. No annual report received.

Caspar Sanger, sheriff; P. Van Vechten, Jr., under sheriff.

MILWAUKEE POLICE STATION. This institution has been visited on several occasions by members of the board and the secretary, but there is nothing new to be said in relation to it. People who stay here over night probably do not expect the luxuries of a pleasant home, and they are not disappointed in this respect. It is kept as clean as is possible under the circumstances, however.

COUNTY HOUSE OF CORRECTION, Milwaukee. Visited November 20.

This prison continues to be conducted in an excellent manner. From the magnitude of its work, it is impossible to obtain adequate information from the notes of a day's visit.

From the annual report of inspector Daniel Kennedy, dated March 16, 1877, we gather the following information in relation to the business of the year ending March 15:

Total number of chairs manufactured this year.....	87,141
Total number of chairs sold this year.....	90,420
Amount charged for them.....	\$41,001.20
Cost of lumber used in manufacture	\$12,618.62
Cost of all other material and expenses	\$12,552.97
Gain of chair factory this year	\$14,785.04
Cost of total prison expenses	\$14,474.53
Number of chairs now on hand.....	21,527
Value of same.....	\$10,189.82
Value of lumber on hand	6,746.51
Value of turned and bent stock.....	5,760.19
Value of all other material on hand.....	1,196.74
Cash and bills receivable on hand.....	1,914.95
Good outstandings over liabilities	6,908.76
Total amount of available property	<u>32,715.97</u>

The inspector says: "Notwithstanding the unexampled depression and stagnation of business, the institution has not only made its earnings equal its expenses by enforcing rigid economy in every department and reducing its expenses at every possible point, but I can, with great pleasure, report the gratifying result of a small *net gain* over and above all expenses:

The gain of the chair factory has been this year	\$14,735.04
Total cost of administration of prison this year	14,474.53
Showing a net gain of.....	<u>\$260.51</u>

"The number of prisoners has steadily decreased. On the date of my last report there were confined 98, of whom 45 were sentenced for over six months. To-day the number is only 82, and 32 have a sentence of over six months. Last year the daily average was 115; this year it is only 94. The total cost for each convict per day was 42 18-100 cents, or per annum, \$153.98, which exceeds the total cost of last year \$1.87. This is only on account of a decreased number of convicts, as salary, fuel, etc., remains the same, or cannot be reduced in the same proportion. Number of rations issued, 102,930, at a cost of 3 1-5 cents each.

"The highest number of convicts in one day was 105, viz: 96 males and 9 females on September 15th, and 93 males and 12 females on October 15th. The lowest number in one day was 70, viz: 69 males and 1 female on July 11th. Total number of convicts received since the opening of this institution is 5,425; the discharges amount to 5,343.

"The conduct of the prisoners has been generally good; one or two day's solitary confinement, on a diet of bread and water, has been found sufficient in all cases. When convicts are thoroughly convinced that the rules of the prison will be administered with absolute impartiality, and that the punishment will certainly follow their willful violation, its severity can be safely lessened. It is my duty to mention here, that three escapes occurred on September 21, 1876, at 5 o'clock P. M., by an unaccountable neglect of the guard under whose special care they were at that time, for which he was promptly discharged. The health of the prisoners was very good; no death occurred for the last two years."

The following table shows the cost of administration of the prison:

	Annually.	Weekly.
Salary to officers and guards	\$5,476 87	\$105 82
Subsistence for officers, guards and inspector's family...	2,189 20	42 10
Subsistence for convicts.....	8,281 80	63 10
Clothing and bedding.....	527 64	10 15
Fuel.....	1,646 40	31 66
Prison repairs.....	818 60	6 13
Prison expenses and stationery	655 05	12 60
Teaming, feed and forage.....	879 40	7 30
Total	\$14,474 53	\$278 36

The following table shows the annual and daily cost of each convict:

	Annually.	Daily.	
		Cts.	Mills.
Salary to officers and guards.....	\$58 26	15	9.6
Subsistence to officers, guards and inspector's family..	23 29	6	3.8
Subsistence for convicts.....	84 91	9	5.6
Clothing and bedding	5 62	1	5.8
Fuel.....	17 51	4	8.0
Prison repairs.....	3 39	..	9.8
Prison expenses and stationery.....	6 97	1	9.1
Teaming, feed and forage	4 08	1	1.1
Total	\$153 98	42	1.8

The whole number of days imprisonment was 33,409, of which 5,918 was lost time, 4,578 labor necessary to the administration of the prison, but not financially productive, and 22,913 of a directly remunerative character.

The following table shows how many sentences had been undergone by the total prison population for the year:

COMMITTED.			
For first time.....	382	For ninth time.....	8
For second time.....	120	For tenth time.....	3
For third time.....	44	For eleventh time.....	2
For fourth time.....	32	For twelfth time.....	3
For fifth time.....	9	For eighteenth time.....	1
For sixth time.....	18	For nineteenth time.....	1
For seventh time.....	7		
For eighth time.....	4	Total.....	624
Percentage of first commitments.....	61		
Percentage of second commitments.....	19 1/2		
Percentage of commitments oftener than twice.....	19 1/2		

The following table gives the time for which the prisoners were sentenced:

For 7 days.....	4	For 7 months.....	1
10 days.....	2	8 months.....	2
15 days.....	240	1 year.....	7
20 days.....	104	1 year and 4 months.....	1
30 days.....	94	1 year and 6 months.....	2
40 days.....	19	2 years.....	3
45 days.....	1	2 years and 6 months.....	4
60 days.....	21	3 years.....	1
90 days.....	17	4 years.....	4
1 month.....	4	8 years.....	1
1½ months.....	2		
2 months.....	7	Total for over 6 months....	<u>26</u>
3 months.....	10		
6 months.....	73		
Total up to 6 months, incl..	<u>598</u>		

The average sentence to those for 6 months and less was..... $45\frac{1}{4}$ days.
The average sentence to those for over 6 months was..... $789\frac{3}{4}$ days.
The average sentence to each prisoner received was..... $76\frac{1}{4}$ days.

Total number of days of those for 6 months and less are..... 27,053
Total number of days of those for over 6 months are..... 20,533
Total number of days of all convicts received are..... 47,586

Table of nativity of prisoners:

Born in the United States.....	224	Born in Bohemia.....	6
Canada.....	18	Hungary.....	1
England.....	37	Finland.....	2
Ireland.....	189	St. John's Island.....	1
Germany.....	146	West India.....	1
Norway and Sweden..	14	East India.....	1
Denmark.....	3	Italy.....	2
France.....	1	Luxemburg.....	2
Poland.....	8	Greenland.....	1
Switzerland.....	7	Iceland.....	1
Russia.....	4	Belgium.....	1
Holland.....	1		
Austria.....	3	Total.....	<u>624</u>

Percentage of native born..... 86

MONROE COUNTY JAIL, Sparta. Visited March 27.

There were six inmates on the day of the visit, all males.

The building is a one story brick addition to the court house. It contains 8 cells, 7 feet by 5, and 8 feet high, lined with iron plating throughout. There are 2 corridors, one of which is used exclusively for women when any are imprisoned here. Of the bedsteads 2 are of iron and the others of wood.

The closet seats are on the open corridors, and the pipes are only

cleaned by pouring water into them. The sewage is carried into a cesspool, but there is no perceptible set-back of odors or gases, at this time. There appears to be plenty of water, and it is liberally applied for purposes of cleanliness. No bugs or vermin are visible and they are said to be found on the premises very seldom. There are no sheets on the beds, but the woolen blankets are washed occasionally when it is thought necessary.

The administration presents nothing unusually objectionable in its treatment of the prisoners. Some work is provided for them, but most of their time is spent in idleness, as is the case in other jails of the state. There were 21 committals during 1876, with an aggregate of imprisonment of $17\frac{1}{2}$ months. Since the first of January, 1877 there have been 20 committals.

The county pays \$3.50 per week for board of prisoners.

N. P. Lee, sheriff; Ulrich Wettstein, jailer.

CITY LOCK-UP, Sparta. Visited April 4.

Number of arrests since April 4, 1876, 48. No inmates at the time of the visit.

This place of temporary detention consists of a comfortable, clean cell and outside corridor, in the village hall building, and is well adapted to its uses.

The arrests for violation of village ordinances are all on account of drunkenness and disorderly conduct. Of the whole number mentioned 9 have paid fines of \$5 or over, 13 were released without payment of the fines adjudged, 2 were committed to jail for 10 and 20 days respectively, 14 were discharged on promise of leaving town, 2 on payment of costs, 2 on promise of keeping sober, and 1 on recommendation of the president of the village.

OCONTO COUNTY JAIL, Oconto. Visited May 25.

One inmate at time of visit.

The general condition of this jail does not differ essentially from its condition when visited last year. It is a two story wooden building, with nine cells in the upper story facing inward upon a hall-way which extends lengthwise through the house. One of these cells is intended for women, but has only been occupied in that way once during the last four years. As the building is rather rickety, the prisoners have plenty of air through the walls and windows, and water seems to be supplied in quantities, only limited by

the inclination of inmates to bring it. Washing of hands and face is required at least once a day.

Good new woolen blankets have been put on the beds lately, and the ticks have been filled with fresh straw. No work is furnished the prisoners except cutting wood and bringing wood and water into the jail.

No jail register was kept last year, but from memoranda it appears that there were five commitments during 1876, including one man sentenced to jail for six months, who escaped. The others were discharged on trial, one of them, a woman, having been held eight months before coming to trial. This does not take into account arrests for disorderly conduct, of which there were several, not recorded in any manner.

The county is charged \$5 a week for board of prisoners.

P. W. Geekie, sheriff; M. F. Powers, under-sheriff.

OUTAGAMIE COUNTY JAIL, Appleton. Visited May 16.

One inmate at this date.

The visit of May 16 was made by the secretary in company with the secretary of the state board of health and the mayor of the city of Appleton. Certain changes of a sanitary nature were at this time recommended, and have been since carried out, as we are informed.

The general notes upon the condition and management of the jail having been made by Mr. Tilton at a previous visit, no attempt was made to prepare such notes at this time. On account of the illness of Mr. Tilton the notes are not at hand at the time of preparing this report, but it may be said generally that eight cells in the lower story, ill ventilated and with stone floors, are used for men, and two cells in the upper story, large and well lighted, for women.

James Lannon, sheriff.

OZAUKEE COUNTY JAIL, Port Washington. Visited May 22.

No inmates at this date, and not more than one at any time since January 1.

This jail contains four double-bedded cells, plastered, but needing whitewashing. Each cell ventilated through a window. There are only three sheets and pillow cases belonging to the cell rooms

in all, and those are pretty ragged, so that it has been decided to add some new ones.

The commitments for 1876 were, for assault and battery, 9; larceny, 5; drunkenness, bastardy and carrying concealed weapons, each 2; arson, murder, forgery, vagrancy, contempt of court, insanity and satisfaction of judgment, 1 each. Of the whole number, 15 were sentenced to greater or less penalties, from imprisonment in state prison to payment of costs.

The county pays \$3 a week for persons confined for any length of time; seventy-five cents a day for "casuals," and a dollar a day for the insane.

Joseph Malherbe, sheriff.

PEPIN COUNTY JAIL, Durand. Visited August 10.

One inmate at time of visit.

This jail comprises the lower story of a rather neat wooden house, clapboarded and painted white, over walls of 2 by 8 inch scantling spiked together. There are four cells, two on each side of a hall-way, with a day room in front. The cells are about 7 feet by 5, and one is lined with thin iron plate. There is no light or ventilation in the cells except through the hall-way, the latter having one window and a grated door between it and the day room. The day room is 16 feet square, and has two small windows. The floors are of oak plank.

Cistern water is plentiful, but the well pump is not in good order. Underclothing is washed once a week. The beds are of straw, with blankets but no sheets or pillow cases. The closet seat is in the rear end of the hall-way, and is now half full of excrement, although it is said to have a sewer.

This building may do for a jail as long as there are not more than two prisoners confined there at a time. The outside windows are within reach of the ground, and escape is thus rendered practicable to an enterprising person with friends in the vicinity. The county pays \$3.50 a week for prisoners' board.

Charles Coleman, sheriff; L. S. Briggs, jailer and village marshal.

PIERCE COUNTY JAIL, Ellsworth. Visited August 7.

No inmates at this date.

The jail comprises the lower story of the brick court house, and is dry, light and airy. The cage is of boiler iron, and contains three

cells, with an open space in front, separated from the general corridor passing around three sides of the cage, by grating of inch and a quarter iron bars. Doors and windows heavily grated. The general condition of the cell room is good, except where a hole has been knocked through the brick wall, separating the male and female apartments, for the purpose of escape, the door of the vacant room for females having been open at the time.

The room for female prisoners has a comfortable bed, and is separated from the general cell room by a wall 8 inches thick.

The well and cistern are both good, and in good working order. Good attention seems to be paid to cleanliness of prisoners.

The closet seats are over vaults without sewerage; one for each sex, in the respective rooms. No ill effects have arisen from this arrangement, up to the present time. The room is easily warmed, and good bedding is used, with sheets and pillow cases. County pays \$4 a week for board of prisoners. A lock-up was built at River Falls last year for purposes of temporary detention; but was not visited.

T. L. Nelson, sheriff; H. P. Ames, jailer, lives in the court house building with his family.

POLK COUNTY JAIL, Osceola. Visited August 5.

There have been no inmates in this jail for the last six months.

The jail consists of one cell, about 8 by 10 feet, built of spiked scantling, in the court house, and has two grated windows. The court house is of wood. The cell door is made of 2 by 4 inch scantling laid flat and covered on both sides with inch boards.

The bed is of straw, on a rude wooden frame, and has blankets and a pillow with dirty case. Water for drinking and washing is brought in from a well, outside. The under-sheriff in charge lives about a quarter of a mile away, and sometimes keeps prisoners at his house for safety. The county pays a dollar a day for board of prisoners.

B. M. Babcock, sheriff; M. H. Peaslee, under-sheriff.

PORTAGE COUNTY JAIL, Stevens Point. Visited April 2, and June 19.

Number of prisoners at former date, 4; at latter date, 1.

The jail is contained in the basement of the stone court house, and has a floor of cement. There is no drainage except into the

surrounding sandy soil, and no ventilation except through the windows, which are near the level of the ground. Water is plentifully supplied. The cell group is built in the middle of an apartment, facing outward, with a corridor passing around it. There are three single cells on each of two sides, and two double cells at the end. One of the side divisions can be shut off from the others when necessary.

Little pains seem to be taken in keeping the jail in good order, but the prisoners are as cleanly as usual, and change their under clothing once a week.

The beds are on iron frames, fastened to the cell walls on one side, and held up on the other by chains. They are of straw, with blankets, but no pillows or sheets.

The outside walls are of little account. Three prisoners dug through one of them, recently, in an hour and a quarter, and one of the three escaped entirely.

The charge for board of prisoners is \$3.50 per week. John Eckels, sheriff, and F. L. Wheelock, under-sheriff, both live in the building.

RACINE COUNTY JAIL, Racine. Visited May 4.

Nine inmates at this date, all men.

There is considerable improvement in the general appearance of the jail as regards neatness and cleanliness since our last visit, and new apartments are being built for the accommodation of female prisoners apart from the male quarters. Water still has to be carried into the jail, a task which is performed three times a day by prisoners, and at other times, when wanted, by employees.

There is one privy seat on the lower floor over an inaccessible undrained vault. This condition is to be remedied during the present year.

The bedding looks fresh and comfortable. The common corridor is warm in winter but badly ventilated.

The jail register for 1876 is in a rather confused state, but after deducting additional commitments of the same persons, evidently made for every time they went into the court room, we have the following approximation of the charges upon which persons were confined here during that year: Drunkenness 6, vagrancy 44, larceny 22, assaults 20, destroying property and obscene conduct,

each 2, threats to kill, murder, carrying concealed weapons and forgery, each 1.

The jail was also visited in November, after the contemplated improvements had been made. More light was admitted by taking away a partition near the end of the building, and adding windows, and a large sewer was about to be commenced. The women's room is well calculated for its purpose, and the alterations are certainly in the nature of improvements, though the jail is still dark and unwholesome, and it is to be regretted that the radical measure of building an entirely new jail had not been adopted.

Louis Konst, sheriff; James Fielding under-sheriff.

RICHLAND COUNTY JAIL, Richland Center. Visited August 29.

Two inmates at this time.

The rooms in this jail, two above and two below, are large and comfortable. Only those above are now in use, the lower ones serving the purpose of store rooms.

There is a good well of soft water in the jail yard, but no cistern. The inmates are fairly comfortable. No sheets are furnished for the beds, but woolen blankets and pillows are used.

The commitments during 1876 were one each for burglary, arson, assault, assault and battery, and contempt of court. Hugh Brooks, accused of arson, has been confined here since July, 1876, and his trial is set for next November.

The county pays 80 cents a day for board and care of prisoners.

Sheriff, G. M. Madison; under-sheriff, Harvey Busby, lives in the jail building with his family.

ROCK COUNTY JAIL, Janesville.

This jail was visited three times during the year 1877, by members and the secretary of the board, but detailed notes were not taken, or have not been received at this office.

The management appears to be very satisfactory, but the jail itself has objectionable features, which have been alluded to in previous reports of this board.

The building is of brick, with stone floors, and the latter, being very near the level of the neighboring river, are cold and damp. The cells have iron grated doors, covered at night by thick wooden ones. Women are placed in an upper room, with large and well ventilated cells.

S. G. Colley, sheriff.

ST. CROIX COUNTY JAIL, Hudson. Visited March 31, and September 24.

Number of inmates at former date, 8; at latter, 7, all males.

The jail is in the basement of the stone court house, and includes 7 cells and a recess, all facing on ample corridor. The prisoners' quarters are fairly clean. Night slops are carried out daily, in covered buckets.

It was noted at the first visit that the place was unsafe for keeping prisoners, and this opinion was confirmed on the 7th of June, by the escape of 4 prisoners, tools having been passed through the window. With these tools the iron sheeting was pulled off from a portion of the ceiling and a hole made into the sheriff's office above, through which the escape was made. Three of the runaways were afterwards recaptured, and have since been kept confined in their cells for the greater portion of the time.

The health of the prisoners is apparently good, and they report they have nothing to complain of as to their fare or accommodations. They amuse themselves during the day by reading, debating and singing, and some of them are permitted to help about some of the work outside.

There were 29 commitments in 1876, of which 7 were for robbery, 4 for larceny, 2 each for wife-whipping, vagrancy, murder, attempt to kill, forgery and insanity, and 1 each for disorderly conduct, embezzlement, drunkenness, threatening to kill, rape, and shooting a hog. Only five cases (besides the insane who were sent to the hospital), were disposed of finally by the courts, and of these, 3 were convicted and 2 acquitted.

Sheriff Thomas Walsh lives in the building with his family, and takes personal charge.

SAUK COUNTY JAIL, Baraboo. Visited July 19.

One inmate at this date.

The jail is of stone, with four cells in each of two stories. There has been no change since last year, except an additional grating over the upper windows, through which an escape was made last fall. When women are imprisoned here (which is seldom), they are placed on the lower floor, away from the apartment for men. The privies have drawers under the seats, which have not been emptied for some months. The beds for the prisoners are of straw, with pillows and sheets.

The commitments for 1876 were, for assault and battery, 5; assault to kill, 4; larceny, 5; vagrancy, 2; drunk and disorderly, 5; and for assault to rape, adultery, murder, embezzlement and bastardy, each 1. For the first six months of 1877 there have been committed, for blackmailing, 3; larceny, 3; assault and battery, 3; and for incest and embezzlement, 1 each. The county is charged \$4 a week for board of prisoners. Sheriff R. A. Wheeler, lives in the building with his family, N. D. Wheeler acting as turnkey.

SHAWANO COUNTY JAIL, Shawano. Visited March 23.

It contained no inmates, and would not greatly restrict the liberty of any one placed in it.

It is, without exception, the most liberally ventilated jail in the state, and is undoubtedly a healthy place of abode in mild weather.

It is of wood, 30 by 27 feet, 2 stories high, and has 6 cells 5 by 8 feet.

SHEBOYGAN COUNTY JAIL, Sheboygan. Visited May 23.

Two inmates at date of visit.

The premises are tolerably clean and not so damp as at the time of last year's visit, but otherwise not changed. One of the two corridors can be used for females, if necessary.

Water is brought into the cell room when needed, generally by the prisoners. No sheets or pillow cases are furnished, but the straw beds are provided with good woollen blankets. Ventilation through windows, and apparently not attended to with much strictness. No jail register was kept last year.

Joseph Schrage, sheriff, lives in the building with his family.

TAYLOR COUNTY JAIL, Medford. Visited June 26.

This jail was just completed at the time of the visit and had no inmates. It is a one story wooden building, 32 feet by 40, with corridor extending around 3 sides of the cell group, including the rear. The cells face outward, 2 on each side, with two other rooms in the same group, intended, respectively, for bath room and water closet. The walls and partitions are of pine plank, 6 inches wide, spiked together, and the floors are of 10 by 2 inch plank set on edge and similarly spiked. The room at the front is to be used for the jailor's room, for the present. There are three windows on each side of the jail, each window having a single set of grates of 1½ inch iron. The cell doors are of iron grating. There is no other

ventilation to the cells than is afforded by the doors. The cost of the building was \$1,870.

The obvious defects of this jail are, the proximity of the windows to the ground by which instruments can be handed in from the outside; the lightness of the grating which an expert prisoner can remove sufficiently for his escape in half an hour if he has a steel saw; and the corridor in the rear of the cells giving an opportunity for mischievous work without being in danger of discovery from outside of the cell room.

Henry Grant, sheriff; S. H. Keeler, under-sheriff.

VILLAGE LOCK-UP, Trempealeau. Visited September 27.

This is the only place for the detention of offenders in Trempealeau county. It is a stone building with walls 20 inches thick, and contains 2 cells, each 8 by 9 feet. The floor is of solid rock in place. One window to each cell, 3 feet by 1, with a single grating. There is also a window to the day room, which is 7 feet by 17 with one wooden bunk, dilapidated stove, chair and table. All the windows are accessible from the ground.

One dollar a day is charged for the care of prisoners at this place.

VERNON COUNTY JAIL, Viroqua. Visited August 27.

Number of inmates at this date 3, all males, and all accused of horse stealing.

The building is of wood, 2 stories high, and contains 3 stone cells on the ground floor, the walls of which are 2 feet thick, and 2 cells of boiler iron, about 8 feet by 10. There is a closet seat in each cell over a vault without any sewer, but with ventilating flue. There is no ventilation to the cells except through a small hole in each of the iron doors, and through the windows. The cell odors in the morning are most sickening. There is no apartment for women.

There is plenty of cistern water, and it appears to be used liberally for purposes of cleanliness.

The facilities for heating are also very good. The jail is dangerous, however, to the health of any person confined in it, or living in any part of it; and it is by no means secure, the windows having only one set of grates and reaching to within 3 feet of the ground.

Seventy-five cents a day is charged for board. Sheriff, C. E. Morley.

WALWORTH COUNTY JAIL, Elkhorn, visited by Mr. Tilton, date unknown; the notes of the visit not being at hand. This is an unsafe jail, and has other objectionable features, which have been noted in previous reports. Sheriff, C. P. Taylor.

There is also a small lock-up at Whitewater.

WASHINGTON COUNTY JAIL, West Bend, visited May 14.

There are 4 inmates, at this date, all males.

The jail building consists of a two-story residence for the sheriff, with a one-story addition containing the cells. The whole is constructed of wood, and the addition is surrounded by a wooden fence, about 10 feet high. The jail rooms are low, badly ventilated, and unsafe. The floors and partitions are of wood, and the walls lathed and plastered. There is a well in the front yard, and a cistern at the house. Only one woman has been confined here during the present year, and she was evidently dissatisfied, as she escaped over the fence on the following night.

The privy is built over a shallow vault, which has no sewerage.

The beds are comfortable, and have sheets and pillow-cases.

There were 48 commitments during 1876, of which 21 were for vagrancy, 14 for assaults, 3 for larceny, 2 each for embezzlement, contempt of court, and insanity, 1 each for bastardy, assault with intent to kill, disorderly conduct, and obtaining money under false pretenses.

The sheriff receives \$3.50 per week for board, and 50 cents extra for washing for each prisoner. A charge of 50 cents is made for keeping tramps over night.

Hugo Koenen, sheriff.

WAUKESHA COUNTY JAIL, Waukesha. Visited Sept. 17, 1877.

There are 8 inmates at this date, of whom one is insane and one a woman.

The building has not improved with age, and has the same objectionable features that have been noted in previous years, but made worse by the natural dilapidations brought on by the wear and tear of prison usage. It is disgraceful to a county of the wealth and intelligence of Waukesha, and a county within such easy reach of the operations of professional criminals, that a structure should be used there for purposes of imprisonment, from which the worst criminals almost uniformly escape. Five prisoners escaped a few nights ago by striking the turnkey over the head with an iron

stove-shaker as he entered to lock up the cells, and rushing out before he recovered his senses. Only two of them have been recaptured. Sheriff, J. W. Patterson.

This jail was also visited on the 8th of May, 1877, by Mr. Giles, and incidentally at other dates by the secretary.

A small lock-up has been built within the past year at the village of Pewaukee.

WAUPACA COUNTY JAIL, Waupaca. Visited April 3 and June 18.

One inmate at the first date and two at the last mentioned.

Brick dwelling with stone jail attached; the latter being about 30 feet square, 2 stories, with 6 cells in each story. The cell floors in the upper story are of stone flagging, and of wood upon a foundation of solid rock, on the ground. The jail yard is not used by prisoners. The cell partitions are of 1½ inch oak boards, 6 inches wide, laid flat upon one another and spiked together. The rooms are kept as clean as possible, but the building is leaky and in some respects unfitted for the uses to which it is applied.

The inmates are made as comfortable as is practicable, and have plenty of fuel and water supplied them. Sheets are not used on the beds.

Mr. Tilton writes of the inmate on April 3: "The young man got drunk and robbed a clothes line, and was sentenced to pay a fine of \$40 or six months in jail. He is very sorry that he is in jail, and hopes his father will soon pay his fine and permit him to go out. He is lonesome with no company, and says he will not drink any more whisky."

Of the two who were present on the 18th of June, one is from Waushara county, and the other is a boy of 12 years old, sentenced for 30 days for larceny. He cannot read, and says his parents do not allow him to go to school.

Several improvements of a useful character have been carried out by the present sheriff, A. J. Van Epps, since he took charge in April.

Board of prisoners costs the county \$4.50 per week.

There is also a lock-up at Weyauwega.

WINNEBAGO COUNTY JAIL, Oshkosh.

This jail, as stated in the introductory note, was visited only by Mr. Tilton, and the record of the inspection has not been filed in this office.

The jail has accommodations for 28 prisoners, and occupies the stone basement of the court house. There is no communication between the male and female apartments.

WAUSHARA COUNTY has no jail.

WOOD COUNTY JAIL, Grand Rapids. Visited June 20.

Two inmates at the time of the visit.

This jail is in the basement of the wooden court house, but its walls are of stone laid in cement. Its floors are of wood laid over stone. The ceiling is of 8-inch timbers. There are only three cells in all, which are partitioned with 2-inch pine plank, 6 inches wide, laid flat and spiked upon each other. The doors are of wood, heavy, and lined with iron plates. There are no grates, and but one ventilating hole, 4 by 6 inches, in each cell. The windows in the day room are three in number, and each is composed of three lights of glass 12 by 14 inches, with a single grating of iron. Only one cell is furnished with a bed. The fence about the jail yard is nearly destroyed.

The day room is warmed by a single "box" stove. With the door of his cell shut a prisoner would derive little, if any, benefit from the stove. Ventilation is, of course, almost wholly wanting. No register of inmates has been kept. A dollar a day is charged for board of prisoners.

Philip Ward, sheriff; Peter McCauley, under-sheriff. Those officers live in the jail building

IV. THE POOR HOUSES.

The notes of inspections of poor-houses show a general improvement in their management, which is especially gratifying. Every poor-house in the state, whether under town, county or city charge, has been visited and examined with as much thoroughness as was practicable, and its condition reproduced in our records with all possible faithfulness.

The general outlines of these records are condensed in the first of the three tables following, the counties of Fond du Lac, Rock and Walworth, being omitted on account of the notes on the poor-houses in those counties having been taken by Mr. Tilton, and not sent to this office by reason of his serious illness. The poor-house

of Green county was burned last winter, and a new one is in the process of construction.

The second and third tables are condensed from the annual reports of such overseers as made reports, and are self-explanatory. The overseers of the poor-houses of Fond du Lac, Green, Iowa, Monroe, Polk and Waupaca made no reports.

The letters "Rep.," in the last column of the first table, refer to the report of the inspecting officer for the particulars of the manner of paying overseers.

TABLE showing condition of the poor houses of the state at the time of visitation by the board.

Counties.	Date of Visit.	No. of Inmates.	Males.	Females.	Insane.	Imbecile.	No. employees including overseer and matron.	Salary of overseer.
Adams	Sept. 21	18	10	8	4	1	5	\$500
Brown	Nov. 3	65	38	27	4	2	.....	500
Chippewa	Aug. 15	17	7	10	.....	.....	.....	.....
Crawford ¹	Aug. 28	7	6	1	1	.....	3	900
Columbia	Mch. 28	60	43	17	13	2	2	.....
Dane	July 5	60	.....	.....	30	.....	.....	.....
Dodge	May 7	66	43	23	16	.....	6	850
Dunn ²	Apr. 2	9	.....	.....	.....	.....	.....	Rep.
Eau Claire ³	Apr. 2	10	6	4	.....	.....	.....	Rep.
Grant	July 6	40	25	15	14	1	2	Rep.
Iowa	Aug. 24	42	30	12	8	.....	4	900
Jackson ⁴	Apr. 4	2	.....	2	.....	.....	1	200
Jefferson	May 31	54	29	25	24	1	4	700
Kenosha ⁵	May 4	1	.....	1	.....	.....	1	.....
La Crosse ⁶	Mch. 29	12	5	7	2	.....	2	Rep.
La Fayette	Aug. 23	35	32	3	5	2	5	800
Milwaukee	July 21	120	.....	.....	39	.....	6	800
Monroe	Mch. 28	13	6	7	1	.....	3	350
Ozaukee	May 15	11	7	4	4	.....	2	Rep.
Pierce	Aug. 7	9	5	4	1	1	2	Rep.
Polk	Aug. 5	4	2	2	2	1	2	Rep.
Portage	Aug. 2	7	2	5	1	.....	2	Rep.
Racine	Jan. 30	18	11	7	5	.....	2	.....
St. Croix	Mch. 31	9	7	2	2	1	2	.....
Sauk ...	July 18	39	22	17	14	2	5	950
Sheboygan	May 15	14	7	7	14	.....	2	Rep.
Vernon	Aug. 27	25	17	8	2	2	3	400
Walworth .....	.....	.....	.....	.....	.....	.....	.....	.....
Washington	May 15	39	19	20	5	1	6	350
Waukesha	May 8	48	31	17	7	1	4	700
Waupaca	June 18	39	23	16	1	5	3	600
Winnebago	Apr. 18	42	.....	.....	.....	.....	.....	600

¹ City of Prairie du Chien.

² Village of Menomonie.

³ City of Eau Claire.

⁴ Village of Black River Falls.

⁵ City of Kenosha.

⁶ City of La Crosse.

TABLE showing general statistics of 27 poor houses for the year ending November 1, 1877.

COUNTY OR CITY.	Number paupers November 1, 1876.	Number November 1, 1877.	Whole number during year.	Whole number insane.	Number insane November 1, 1877.	Whole number drunkards.	Value of poor Farm.
Adams	14	19	23	4	4	.....	\$5,500
Appleton (city).....	7	7	20	.....	.....	3	4,000
Brown.....	45	65	133	8	4	23	20,000
Chippewa .....	.....	20	28	.....	.....	.....	3,500
Columbia..	31	53	92	11	11	41	7,000
Dane	66	64	105	26	21	40	14,321
Dodge.....	62	62	88	24	24	7	80,000
Eau Claire (city).....	11	2	33	.....	.....	2	†.....
Grant	33	42	54	14	14	4	21,700
Jefferson	52	56	81	23	23	5	13,000
Kenosha (city)	3	2	4	.....	1	.....	600
La Crosse (city).....	15	11	31	6	2	1	†.....
La Fayette.....	31	33	43	4	3	.....	22,000
Milwaukee	130	136	200	65	60	42	60,000
Ozaukee.....	10	13	14	3	3	2	†.....
Pierce.....	18	8	13	1	1	2	†.....
Portage	3	4	16	1	1	3	†.....
Prairie du Chien (city).....	7	8	9	.....	.....	2	1,500
Racine	16	21	36	6	6	.....	9,000
Rock	55	50	100	†.....	11	†.....	†.....
*Sheboygan	11	21	22	22	21	1	15,000
St. Croix	8	10	15	2	2	6	8,000
Sauk	40	42	64	16	12	4	11,000
Vernon.....	25	27	40	1	1	.....	10,792
Winnebago	43	43	74	12	12	5	†.....
Walworth.....	48	50	72	25	20	6	25,000
Washington	37	40	41	5	5	†.....	16,000
Waukesha	43	41	82	11	11	3	15,000
Total	862	955	1,543	295	278	202	312,913

* County Insane Asylum. † Rented. ‡ No report.

TABLE showing statistics of paupers in twenty-seven poor-houses
on the 1st of November, 1877.

COUNTY OR CITY.	Total No. Males.	Total No. Females.	Foreign Born Males.	Foreign Born Females.	Paupers of Foreign Born Parentage.	Paupers Married.	Children under ten.	Value of Pauper Labor.
Adams..	12	7	1	1	0	5	4	\$100
Appleton (city).....	5	2	2	1	4	1	4	50
Brown	37	28	24	20	18	25	14	200
Chippewa	8	12	6	2	10	8	6	70
Columbia.....	30	23	22	21	.....	36	2	.....
Dane.....	38	26	27	15	9	11	2	800
Dodge.....	35	27	*	*	*	.....	.....	00
Eau Claire (city).....	1	1	1	.....	.....	2	0	00
Grant	25	17	5	6	8	3	14	200
Jefferson	31	25	15	13	11	24	7	.....
Kenosha (city).....	1	1	0	1	1	2	0	00
La Crosse (city).....	5	6	3	7	.....	.....	.....	.....
La Fayette.....	30	3	26	3	.....	4	2	200
Milwaukee	32	54	.....	.....	.....	.....	.....	400
Ozaukee.....	9	4	9	3	1	5	0	00
Pierce.....	4	4	2	1	1	5	0	.....
Portage	3	1	1	0	1	3	0	.....
Prairie du Chien (city)	7	1	5	1	0	3	.....	.....
Racine	14	7	13	6	0	0	0	100
Rock	32	12	.....	.....	.....	.....	.....	.....
St. Croix.....	8	2	6	2	.....	.....	.....	.....
Sauk	26	16	13	4	1	24	8	100
Sheboygan	11	10	9	7	3	8	1	50
Vernon	16	11	5	4	.....	1	2	150
Winnebago .....	.....	.....	.....	.....	.....	.....	.....	.....
Walworth	24	26	10	11	0	18	1	400
Washington	26	14	20	6	3	17	.....	.....
Waukesha	25	16	19	6	.....	0	.....	.....
Total..	546	362	244	141	71	205	62	\$2,320

* All the paupers in this institution are either of foreign birth or foreign born parentage

ADAMS COUNTY POOR-HOUSE, New Haven. Visited September 21.

Number of inmates 18, of whom 8 are females, 2 males and 2 females being insane, and 2 boys, aged 11 and 15, imbeciles. The average number of inmates for the past year has been about the same as at present.

The farm consists of 130 acres, besides about 40 acres of woodland. The buildings are one story wooden cottages connected with

each other. That used by the overseer and his help is 21 by 14 feet, with an addition 16 by 16. A cooking room back of this 12 by 20 feet, connects it with the two additions for pauper sleeping rooms, these additions being each 30 by 20 feet, at right angles with each other, but not touching. The female building has 2 cells, with wooden-grated fronts, and 4 other sleeping rooms, which may be used for 2 inmates each. The sleeping rooms open upon a corridor and eating room. The building is occupied by the pauper women and an old blind man, the husband of one of the women. The male building is similar, but three of the sleeping rooms have fronts of wooden grating. The cellar is small but clean and good. The farm borders on a small lake a mile long.

There are no children in the institution except the two imbeciles above mentioned.

Religious services are held once a month by a clergyman from Big Spring. Close confinement is used as a means of punishment.

The cistern is not large enough to supply the house with water throughout the year. The well is poor and badly curbed. Water is obtained at less than 20 feet. The house is clean, and no vermin appears. Underclothing and bed covering is washed every week. The ceilings are about 9 feet high, with ventilation at the top of the sleeping rooms. The privies have vaults. Soil, clay and sand. The pauper apartments are warmed by large box stoves for wood.

During the administration of the present overseer the insane have been released from their former confinement, and are treated with humanity and wisdom. Unfortunately Mr. Wright intends to leave the farm at the close of the present year.

Overseer J. B. Wright, who receives \$500 for the services of himself and wife, and \$236 for a hired man and two female assistants.

ASHLAND COUNTY. Visited June 21.

This county has no provision for paupers at present.

BARRON COUNTY. Visited September 23.

Barron county has no poor-house, and but 1 pauper, who is boarded at public expense with a family in the town of Maple Grove.

BAYFIELD COUNTY. Visited June 22.

No paupers nor poor-house.

BROWN COUNTY POOR HOUSE, Green Bay. Visited November 3.

Number of inmates at this date, 65, of whom 37 are males and 28 females. Fifteen of the males and 10 of the females are married. Ten males and 3 females are over 70 years old, and 8 males and 6 females are children under 10 years of age, of whom one, an infant of 4 months, was born in the house. The average number of inmates during the year has been 56. The entire expense of the poor-house for the past year has been \$4,168.56, of which \$500 is paid for salary of overseer.

The premises were found in good condition, and proper attention seems to be paid to the comfort of the paupers, as well as the cleanliness of themselves and their apartments.

The value of the pauper labor at the farm is estimated by the overseer at about \$200 for the past year. The cost of subsistence during the year has been \$3,168.56.

BUFFALO COUNTY, visited August 8.

No poor-house, nor permanent arrangement for the care of paupers.

BURNETT COUNTY, visited September 25.

This county has no poor-house. Through the courtesy of Mr. Aulstrom, the county clerk, the following account of the expenditures of the several towns in the county for the support of the poor, is given:

<i>Towns.</i>	<i>Receipts.</i>	<i>Disbursements.</i>	<i>Bal. Mch. 26, 1877.</i>
Grantsburg...	\$588 98	\$258 02	\$278 91
Wood Lake.....	90 00	45 00	45 00
Trade Lake.....	585 11	68 50	466 61

The town of Marshland was set off last spring, and a tax of one mill on the dollar was levied for pauper support. The town of Bashan omitted to levy any taxes whatever.

CALUMET COUNTY. Visited May 16.

Has no poor-house, but the paupers and semi-paupers of the county are provided for individually and placed in charge of private families when necessary.

The amount allowed to individuals on this account by the county board at its session last winter was \$640.72, and \$237 was paid to

towns for taking care of county poor. An aggregate amount of \$500 was paid out by towns for the care of their own poor last year.

CHIPPEWA COUNTY POOR HOUSE, Chippewa Falls. Visited August 15.

This institution was organized during the past year and is situated two miles from Chippewa Falls.

The inmates on the day of the visit consisted of 7 male and 10 female paupers. There were 7 children aged respectively 2, 3, 4, 5, 6, 8 and 13 years. One pauper family has 3 children, and two others 2 each. All are residents of the county and all of foreign birth or parentage except 2 half-breeds.

The farm consists of 80 acres, and was bought last year for \$2,000. The location is a good one, except that it does not admit of good sewerage. The buildings may do for a time, but are poorly adapted for the care of paupers in a comfortable manner, having no provision for the separation of sexes even. Probably the county will take the earliest opportunity practicable to replace them with structures more in accordance with the demands of the present time. The house was cleanly, and all connected with it in good order. The overseer and his wife seem to be the right persons for their work.

F. J. Brown, overseer, receives a salary of \$600 for his own and his wife's services, and is furnished additional help as necessary.

CLARK COUNTY has no poor-house, nor any special provision for county paupers, so far as we have learned.

COLUMBIA COUNTY POOR-HOUSE. Visited March 26.

Number of inmates 60, of whom 43 are males, and 2 are children aged 5 and 8, respectively. Of the insane there are 8 women and 4 men. There is 1 imbecile of each sex.

The condition of the premises is good, so far as can be made so by the management. The cellar is damp, however, and the drainage necessarily bad, since the bottom of the cellar is at about the level of the water in the stream a few rods away. One death has occurred during the past year, from previous licentious causes.

The sexes are separated entirely except at meals.

Cleanliness is strictly attended to, but the facilities for bathing are not good. The paupers are well clothed and fed, and treated in an enlightened and humane manner.

Mr. Geo. Muggleton, the steward, gives excellent satisfaction, and the superintendents deserve much credit for a faithful oversight of affairs.

There are about 45 acres of land connected with the institution, but little is done with it. Tramps are common, and are often given a night's lodging. The death above mentioned was that of a physician, and another physician, brought to poverty by dissipation, like the first, has recently been sent here for three months.

We append the following concise report of the superintendents to the county board of supervisors.

"The superintendents of the poor herewith submit our 19th annual report, for the year ending October 31st 1877.

"The number of inmates at the poor house at date of last report was thirty-one (31). Admitted during the year, sixty-one (61).

"Total number at poor house during the year, ninety-two (92); of this number, one (1) has died and thirty-eight (38) otherwise discharged.

"Remaining at date of this report, fifty-three (53); of this number eleven (11) are insane, three (3) are idiotic, four (4) are blind, three (3) have each lost a leg, nine (9) are under ten years of age, twelve (12) are between 70 and 90 years of age. The remainder are more or less crippled, deformed, and otherwise incapacitated for self support.

"There have been furnished at the poor house during the year, 2565 weeks' board at a cost of \$4,305.07, being \$1.68 per week, which includes all expenses for provisions, clothing, bedding, furniture, fuel, lights, medicine, medical attendance, repairs, salary of steward, hired help, and all other miscellaneous expenses. We have audited and allowed during the year as follows.

Outside aid granted by supervisors	\$402 60
Outside aid granted by superintendent ..	773 79
Outside aid granted to transient persons	318 68
Outside aid granted for burial expenses	159 80
Outside aid granted for medical purposes	505 18
Traveling expenses	31 20
Transportation	49 28
Provisions at poor house	1,725 98
Clothing, bedding and furniture.....	757 82
Fuel and lights.....	384 35
Medicine and medical attendance.....	237 22
Forage	122 15
Repairs	81 67
Incidental expenses.....	1,118 03
Total.....	\$6,665 70

RECEIPTS.

Appropriation of \$7,000 less \$150 allowed H. W. Roblier	\$6 850 00
Articles sold at poor house	15 95
Cash received from the Witham estate	16 18
Refunded relief	1 00
Cash on hand in hands of superintendents at date of last report...	276 00
Total	\$7,159 08

RECAPITULATION.

Receipts	\$7,159 08
Disbursements	\$6,665 70
In hands of superintendents	493 38— \$7,159 08

"We would recommend and ask the board to appropriate for current expenses for the ensuing year, the sum of seven thousand dollars (\$7,000).

"In conclusion, we wish to call your attention to the large number of inmates now in the poor house, and from applications already made, this number will be very much increased.

"In our opinion, the buildings are inadequate for the accommodation of so large a number, and we ask your consideration as to the necessity of enlarging our present buildings, so as to enable us to suitably provide for the health and comfort of this unfortunate class.

Respectfully submitted,

"H. W. ROBILIER,

"J. Q. ADAMS,

"W. W. CORNING,

"Superintendents of the Poor.

"PORTAGE, November 14, 1877."

CRAWFORD COUNTY. Visited August 28.

There is no county house in Crawford county, but the city of Prairie du Chien has a poor house, situated about a mile from the business portion of the town.

There were seven inmates on the day of the visit, of whom only one was a woman, and one of the men was insane, but of a mild character.

There are five or six acres of land connected with the house, which has not changed materially since the last annual report of the board. There have been no deaths during the year.

A healthy and intelligent colored lad, 9 years old, is the only child on the premises and active efforts have been made to secure a home for him, but thus far without success.

There has been no serious illness in the house during the past year.

The inmates appear to be well cared for, and their beds and bedding are comfortable and clean.

Wm. Brew and wife, overseer and matron, with son 16 years old, receive a salary of \$900 annually, for which they give their own services and those of a female servant, furnishing also all necessities except farm products and clothing for paupers.

DANE COUNTY POOR-HOUSE, Madison. Visited July 5.

The management of this poor-house, under the supervision of Mr. E. E. Titus, overseer, and wife, continues to be of a commendable character. The overseer's salary is \$800 a year.

From the reports of the superintendents, and of the overseer, to the county board of supervisors last November, we gather the following information:

"During the year there has been drawn from the treasury the sum of \$12,148.58, and \$672 for wood furnished to paupers by the county from the court house, that has been applied to the purposes and objects hereinafter specified.

"The sum of \$5,821.97 has been drawn for poor house purposes, with the sum of \$250 in the hands of the overseer from last year, and \$584.28 has been paid into the treasury, received from the McComb's.

"Included in the amount drawn is the amount of \$200 now in the hands of the overseer, not expended, \$217.50 paid for insurance, and \$512 paid for permanent improvements, leaving the amount of \$5,141.47, which has been expended for the maintenance of the paupers in the poor house, including the amount paid resident overseer, physicians' bills, superintendents' per diem, repairs of all kinds, hired help of all descriptions, mechanical labor, medicines, and all other expenses incident to the support and management of the institution.

"The sum of \$3,326.61 has been allowed on account of temporary relief to indigent persons throughout the county, including physicians' bills, transportation of paupers, and \$672 for wood from the court house.

"The average number of paupers in the poor house during the year was 69, with a total cost of subsistence, including the cooking of the same, of \$2,174.29, showing an average cost of \$31.51 per

capita, or 60½ cents per week, including clothing, \$40.25 per capita, which includes all the dry goods used for bedding and other purposes in the house during the year, and for the whole expense of running the institution, \$74.53 per capita, or \$1.43 per week.

"Twenty of the inmates are insane, twelve are idiotic; eight are over 70 years old; twenty-four are over 50 and under 70 years of age.

"At the commencement of the fiscal year of 1876 there were in the poor house 66 paupers. During the year there have been admitted 57, and two born in the house, making the total number of paupers in the poor house during the last fiscal year ending September 30, 1877, one hundred and twenty-five (125.) Of that number 10 have died and 50 have been discharged, leaving at the commencement of the fiscal year 1877, 65 paupers in the poor house, and an average during the year of 69.

PRODUCTS OF DANE COUNTY FARM FOR THE YEAR 1877.

58 acres of corn, 25 bus. to the acre.....	\$710 50
800 bushels of oats @ 20 cents.....	180 00
80 tons timothy hay @ \$6.....	180 00
21 fattening hogs, valued at.....	227 60
56 shot, valued at \$5.....	280 00
Milk from ten cows.....	270 00
Garden vegetables	65 00
150 bushels of potatoes	52 50
	<hr/>
	\$1,915 60

EXPENSES.

Painting out-buildings	\$175 00
For 60 rods board fence	43 00
Ice box and one large cupboard.	10 00
For yards for insane:	125 00
For burial cases for dead.....	15 00
For coal house.....	15 00
	<hr/>
	\$512 00
Estimated value of real estate belonging to Dane county poor house on the 30th September, 1876.....	\$8,980 00
On the 30th of September, 1877.....	9,112 00
Value of all personal property on the 30th of September, 1876 ..	5,208 75
Value of all personal property on the 30th of September, 1877...	5,823 75

The county board of supervisors adopted the following preamble and resolution:

"WHEREAS, It appears that more than forty insane and idiotic persons are now inmates of the county poor house and jail, who are not receiving proper medical treatment; therefore,

"Resolved, That the chairman and clerk of this board be, and they are hereby instructed, to memorialize the legislature of this state for the erection of new buildings for, or enlargement of the present

asylums of the state, so as to make room for these unfortunate beings."

DODGE COUNTY POOR HOUSE, Juneau, visited May 7.

At the time of the visit there were 43 male and 23 female inmates, of whom 8 males and 8 females were insane. One pauper mother has a child of 11 years old with her, who attends the public school. Five of those noted above as insane are probably idiots. Eight of the insane are kept in confinement, 7 of them continuously. The "crazy house" has been greatly improved by a skylight which also serves a good purpose in the way of ventilation. A new building, 20 by 54 feet, has been erected for a wash-room and pest-house and other incidental uses.

Mr. J. W. Perry and his excellent wife continue in charge, and maintain the high rank attained by this institution as a house for the unfortunate poor. He receives a salary of \$800, and men at \$20 per month each, and 2 girls at \$10 each are also employed by the county for his assistance.

DOOR COUNTY, (visited May 25), has no poor-house, and has but one absolute pauper at present, who is maintained in a private family at \$3 per week.

DOUGLASS COUNTY (visited August 3), has no poor-house. Six persons have received aid from the town during the past year, of whom two were widows and two women deserted by their husbands. One of the men is blind, and has a number of children. He receives \$12 a month, and of the others 2 receive \$4 and 3 receive \$5 each. These amounts are paid in town orders having a face value of twice the money to be paid, because this paper is discounted at 50 per cent. The town has rented a house for these paupers, but they all refuse to move into it unless they can be provided with an overseer.

Besides the above, one insane pauper is taken care of by the town, a \$24 town order being paid monthly for his board in a private family.

DUNN COUNTY. Visited April 2.

The town of Menomonee has the only establishment resembling a poor-house in this county. It is managed by a Mrs. Bull, much after the manner of an ordinary boarding house, and is located on a street near the business portion of the village of Menomonee.

The board of paupers is paid for by the town at the rate of \$18 a month for adults and \$10 for children. Paupers from other towns are taken at the same rates.

The number of inmates on the day of the visit was 9, among whom were 4 children. As Mrs. Bull was not at home, no additional details of the house could be obtained.

From the town clerk, Mr. Albert Quilling, it was learned that the average monthly bills of the town for board of paupers were about \$100. Other persons receive occasional aid, especially in the winter. Mrs. Annette Kirkland, a lunatic, is cared for in a private family at an expense to the county of \$8 per week, which are the lowest rates that can be obtained for this particular case.

EAU CLAIRE CITY POOR-HOUSE. Visited April 2.

This establishment is also of the nature of a boarding house, Mr. Wm. Buellshach having contracted to take care of such paupers as are sent to him for 50 cents a day. This arrangement was made May 20, 1876, since which time there has been an average pauper population here of about ten persons.

The house which Mr. Buellshach uses for this purpose presents the ordinary appearance of the cheaper class of German boarding-houses, and as a boarding-house of that class would not be subject to unusual criticism. As a house for the care of paupers it is not conducted with much system. It is, however, visited often by the city poor commissioner, who takes considerable interest in the welfare of the poor under his supervision. Temporary partitions of thin boards separate several of the rooms.

Of the adults 2 are females and 4 males. There are also 2 boys and 2 girls, aged respectively, 2, 6, 9 and 10 years, belonging to one family, and whose father lost his leg by being run over by the cars some months ago. Efforts are being made to secure places for the children in private families. One old married couple room together.

The health of the paupers is as good as could be expected from a class of aged people mostly too infirm to support themselves. The highest number of paupers in the house at one time was 17.

FOND DU LAC COUNTY POOR-HOUSE, Fond du Lac.

This poor-house was visited by Mr. Tilton early in the season, but on account of his very serious illness during the preparation of this report, his notes of the visit have not been obtained.

Mr. D. Wilcox and wife were chosen at the November meeting of the county board of supervisors, to take charge of the county house for the ensuing year.

GRANT COUNTY POOR-HOUSE, Lancaster. Visited July 6.

Number of inmates at this date, 40, of whom 25 are males, and 15 females. One of the latter is an idiot girl 11 years old. Ten men and 4 women are insane.

The farm consists of 220 acres with a good brick house of generous size. The cellar is wet with a wooden floor over the stagnant water in the bottom. A drain has been dug but does not work well, and meat, butter, etc. has to be stored in an out-building to prevent its spoiling. This dangerous situation of affairs is expected to be remedied very soon.

Four cells are used for the confinement of the insane, who have no yard for their especial use, but are allowed considerable freedom. No deaths during the past year.

The sexes eat separately, and have different parts of the house for sleeping. They have more or less of each other's society during the day, however, and there is not even a tight fence between the walks at the back of the house, which are used by men and women.

Cleanliness and other sanitary necessities appear to be well attended to, ventilation by the use of doors and windows being very fair, and the closet buildings at a reasonable distance from the house. Of course the cellar is excepted from this general commendation.

R. B. Showalter and wife have charge of the inmates, receiving \$1.60 a week for each inmate, besides the use of the farm, for their services.

GREEN COUNTY POOR-HOUSE was burned down last winter, and a new one is to be built in a location nearer the railroad, and more easily reached. In making their plans for a new house the county board, and especially the committee having the matter in charge, have shown a degree of interest truly commendable in endeavoring to secure an institution as well fitted for its purposes as is practicable. Pending the completion of the new quarters, the insane have occupied the county jail, which is at once more comfortable and more secure than any other single building that was attainable.

GREEN LAKE COUNTY has no poor-house.

IOWA COUNTY POOR-HOUSE, Dodgeville. Visited August 42.

Number of inmates at this date, 42, including 5 children and 8 insane, 5 of the latter being males. Of the whole number of adults, 25 are males and 12 females. The children are aged respectively, 8, 4, 3, 2 and nearly 2. They are all boys, and advertisements have been published requesting proposals for placing them in families. Several applications have been received, and will be acted on at the next meeting of the superintendents, which takes place the first Tuesday in September. Of the adults, 4 men are seriously ill, 1 of consumption, 1 of hip-disease, and 2 permanently bed-ridden.

The location is a very good one, about 4 miles from Dodgeville, by the side of a running stream, with a living spring within a few rods. The main building is of stone, with a wing of wood, for the insane, with a yard for their exercise. A fine brick oven was built last year. There are 60 acres of woodland belonging to the county farm, and about a mile away from it. The main farm consists of 120 acres of land.

There have been five deaths during the past year, one each of old age, heart disease, consumption, dropsy (venereal), and an infant of diarrhea. A physician of Dodgeville attends the patients in the county house, and also the poor of his own town, for \$90 a year.

Each bed has one sheet, pillow and pillow case. The sick have two sheets to each of their beds. Water is plentiful, there being a good cistern, besides the brook and spring already mentioned. Sheets, pillow cases and underclothing are changed once a week, and personal ablutions are required at least once a day, and oftener if thought necessary.

The privies are objectionable, having vaults and no sewerage.

The paupers appear to be comfortably provided for and well attended to.

The cost of everything except permanent improvements for the last fiscal year was \$1.20 per capita per week. Adding interest of investment, cost of new buildings, farming implements, etc., brings the per capita expenditure up to \$2.09 weekly.

M. F. Rewey is overseer and receives \$900 a year for his services and those of his wife. Out of this, however, he pays for whatever additional hired help is required. Our female servant is employed constantly, and at some seasons, two. Some help is obtained from the insane among the paupers.

JACKSON COUNTY. Visited April 4.

There is no poor house in this county, but in the village of Black River Falls most of the county poor are provided for by the town commissioner of the poor, Mr. John Parsons, who obtains board for them in families which are willing to undertake such provision. The expenses incurred are charged back to the towns where paupers are thus provided for. One insane woman is now boarded at the expense of the county for \$3.50 per week. Two aged women are boarded at town expense at \$4 per week each.

Tramps have been very numerous during the past winter, and have caused considerable expense. The bills of Mr. Parsons on pauper account for the past year have amounted to \$964.60 including temporary relief.

JEFFERSON COUNTY POOR-HOUSE, Jefferson. Visited May 3.

Fifty-four inmates at this time, of whom there are 29 males and 25 females, 12 of each sex being insane. Of the males 7 are children under twelve, and of the females 2. A boy of 13 and a woman of 21 are epileptics and there is a married couple of imbeciles.

The premises are in good condition and show steady improvement. A small building has been constructed between the two main houses, thus connecting them by an intervening room.

The sexes are effectively separated except in the one case mentioned above.

Of the 9 children 4 (a girl and 3 boys) are feeble-minded, 3 (a girl and 2 boys) are under 3 years old, and the other 2 boys, 7 and 11 years old respectively, are attending school, no success having yet attended the efforts made to procure places for them in families.

The insane are unusually well cared for in this institution, and appear to be treated in the most judicious manner. The buildings are awkwardly constructed for their purpose, but are used to the very best advantage.

Mr. and Mrs. Geo. Trucks have charge of the house at a salary of \$600 a year. Mr. Trucks receives \$100 in addition, for outside service to the poor, and a hired man and woman are furnished by the county at the farm.

JUNEAU COUNTY provides for its dependent insane in its county jail, which see under the head of jails.

KENOSHA CITY POOR-HOUSE. Visited May 4.

This is the only poor-house in Kenosha county and seldom has more than 2 or 3 inmates. On the day of the visit there was but one, an elderly woman. During the winter there had been an old man also, but he went away as soon as the weather became sufficiently mild.

The general condition of the premises has not changed much from that of last year. The house is comfortably furnished and is a desirable place for paupers as long as the number of them remain small. As the house is rather old good fires are needed in the winter.

Mrs. Angeline Cooper is the matron in charge, W. E. Reed, poor-master.

KEWAUNEE COUNTY has no poor-house, and as the visit to this county was made by proxy, no investigation was made of the condition of the poor there. The number of those obtaining assistance from the authorities was probably very small.

LA CROSSE CITY POOR-HOUSE, visited March 29

There were 12 inmates, including 5 men, 5 women, and 2 children 6 and 3 years of age. Of insane there were 2, both females.

The house is located near the bluffs, about 3 miles from the city. It is of 2 stories, and cost about \$2,500. The soil is sandy, and drains itself. There is a good well 45 feet deep, and a good barn, rather too near the house. Of live stock, there are 2 horses and 2 cows, and 2 yearlings. There are plenty of pigs, very well cared for.

There have been three deaths during the past year — one man, of consumption, a woman, of old age, and a child five years old, of diarrhea.

The sexes are apparently separated effectively, both at meals and at night. The children belong to a mother who is a temporary inmate of the house, but intends taking them away in a few weeks.

The beds and the house generally, appear to be scrupulously clean. Inmates are required to wash their hands and faces at least daily, and are allowed to bathe as often as they desire. There is a cistern with capacity of 250 barrels. The cellar is small, but clean and sweet. Ventilation throughout the house seems to be well attended to. The few bed-bugs that are found are inhabitants

of the older part of the house, in which they found a lodgment years ago, and from which they have never since been entirely extirpated.

A very sad case of a man partly eaten up with syphilis and with a broken leg, whom we found in the La Crosse jail yesterday afternoon, has been brought out to the poor-house this morning and expresses great satisfaction at his change of quarters. The vermin with which he swarmed yesterday have been washed off from him, and clean clothes have been given him, as well as a clean bed.

F. Metz and wife have charge of this poor farm, which consists of 120 acres. They pay \$100 annually for rent of the farm, and receive \$2.50 per week for the board of each adult pauper, and \$1.25 each for children under 8 years old.

LA FAYETTE COUNTY POOR-HOUSE, Darlington. Visited Aug. 23.

Number of inmates at this date, 35; of whom 28 are men, 3 women, and 4 children all boys, aged respectively six, five and three years, and ten months. Five of the men are insane, and two imbecile.

The farm has 117 acres. The house is of stone, 3 stories high, besides cellar basement. The walls are cracked somewhat, but not seriously. There is a granary in one field, at a distance from the house, and the barn is in another. There is good drainage on three sides of the house, but the privies are located on the side having no drainage, and no effectual means of separating the sexes from each other's view when approaching thereto.

The two upper stories of the building are used for the sane males, and the ground floor for females with children. The basement is partly devoted to the uses of the insane and contains 2 cells on each side of a hall, each couple of cells opening on a sort of anteroom containing beds. A sick man with his wife and a 6 years old child occupy the rooms on one side of the hall. The general management of the house is not appropriate for the purpose of separation of the sexes. If there should be one more female inmate, there would seem to be no alternative but to place her on the same floor with some of the men.

There seem to be good facilities for keeping clean, and attention is paid to washing the persons and clothing of the paupers, and to scrubbing the rooms. There is a bathing room and plenty of water. The odors on the outside of the house, arising from the pens

and closet are not pleasant; with this exception the comfort of the inmates appears to be well provided for.

There have been three deaths during the year — one of old age, one of epilepsy, and one, an infant, of scarlet fever.

J. C. F. Rodolf, overseer, receives \$800 for his own services and those of his wife, as matron. Necessary hired help is furnished by the county. One man and two women are hired throughout the year, besides occasional extra help.

LINCOLN COUNTY has recently purchased a farm, as we learn from private sources, which is to be used for paupers when it shall become necessary.

MANITOWOC COUNTY. Visited May 23. This county has no poor-house, most of its insane poor being kept in the county jail. Four paupers, of whom one is insane, are cared for at the St. Nazian's Catholic Institution, at a cost to the county of \$3 per week each, including everything.

MARATHON COUNTY POOR-HOUSE, Wausau. Visited November 22. This institution contained three inmates, of whom two were males and one female.

The poor-house is situated about two miles southwest of the city of Wausau, and has a farm of eighty acres, of which only forty acres are under cultivation.

The house is 40 by 25 feet, and two stories high. House and surroundings in good condition, with a tolerably good barn.

Henry Paubis, overseer, pays one hundred and fifty-five dollars for rent of farm, and receives three dollars per week for the board of each pauper. For sick ones he receives five dollars each per week. The arrangement would appear to be a profitable one to the county when the quality of the land is taken into consideration. The largest number of paupers at any one time during the past year was 7.

MARQUETTE COUNTY has no poor house.

MILWAUKEE COUNTY POOR-HOUSE, Wauwatosa. Visited July 21 and September 29.

Number of inmates at former date, 120; of whom 13 men and 26 women were insane. Number at latter date, 124; of whom 18 men and 32 women were insane, and 57 men and 17 women not insane.

The premises are in good condition throughout. Rooms and beds very neat. About 20 of the paupers, comprising 10 of each sex, are pretty good workers and assist materially. The general condition of the house and farm is not much changed from last year.

In the county hospital, on the same grounds, there are 56 patients, of whom 34 are males. New ventilators have been put into the hospital building, and the wood work is being painted and the furnaces repaired. There have been 21 cases of lying-in in the hospital during the first 6 months of the year, without any loss of life.

Mr. Henry Hase, overseer of the poor-house, receives \$800 for the services of himself and wife, and is furnished with two male and two female employes by the county.

MONROE COUNTY POOR-HOUSE, Sparta. Visited March 28 and July 24.

Number of paupers at date of each visit, 13, of whom 11 were adults, 5 males and 6 females, the 2 children consisting of a boy of 3 years and a girl of 8. One of the women insane.

The farm comprises 200 acres of good land, with wood enough for ordinary use. The house is of wood, with room for about 25 inmates. Its location is 10 miles from Sparta.

The separation of the sexes is less effectual here than in almost any of the other poor-houses of the state. The women occupy rooms on the ground floor, and the men use the second story, but there is accessibility in both directions. An insane woman was confined in a well ventilated compartment with an open work partition of wood between her room and that of some male inmates. The house was found clean, and the paupers seem to be well fed and comfortable; but there is a want of good feeling between some of the paupers and the family in charge.

There is no cistern, but plenty of well water. Whitewashing is done once or twice a year. The windows are mostly without curtains. There is no drain from the kitchen or from the privies. There are two cellars, one for vegetables and one for milk, etc.

Over one-fourth of the whole pauper expenditure of the county is for the care of transients.

Luther Busby, overseer, receives \$350 a year for the services of himself and family. He has to furnish all additional help except what is obtained from the paupers.

OCONTO COUNTY has no poor-house, but we understand that a farm has been purchased by the county with the intention of using it for paupers when it shall become necessary.

OUTAGAMIE COUNTY has no poor-house belonging to the county, but the city of Appleton has a very good institution of this character about a mile from the court house, and consisting of a farm of 40 acres, with necessary buildings. It was visited May 17 by the secretary, and at an earlier date by Mr. Tilton. It contains very few inmates except during the winter months, when there are usually about ten persons dependent upon the city for support.

The provision for the poor in this house is as comfortable as in the majority of farm houses, and of much the same character. The beds are good, and well supplied with covering.

The overseer and family get \$30 a month and board for taking care of the farm and paupers under their charge. Mr. Joseph P. Hawley is the commissioner of the poor for the city, and has general supervision over the paupers and poor-house. The value of the pauper labor on the farm for the past year is estimated at \$50.

OZAUKEE COUNTY contracts for the care of its poor by Mr. Philip Dengel, whose house is between Fredonia and Saukville; postoffice at the latter place. There were 11 paupers in Mr. Dengel's charge on the day of our visit, May 15, of whom 7 were men and 4 women, one of the former and 3 of the latter being insane. The county pays \$2.60 a week for the care of its paupers, which is a higher price than has been paid in previous years.

The women are kept in the building used as a residence, and the men in a log house in the rear. The sexes are entirely separate. The quarters, in both houses, are comfortable and wholesome. There have been 2 deaths in the past year, both from old age. One had reached 109 years.

PEPIN COUNTY has no poor-house.

PIERCE COUNTY POOR-HOUSE, Ellsworth. Visited August 7.

Number of inmates 9, of whom one woman is insane. Of the whole number, 4 are women, 3 men, 1 an epileptic boy of 16, and 1 a male infant 5 months old, whose mother was deserted by her husband, and came to the poor-house about 3 weeks ago.

The farm consists of 300 acres pleasantly situated $1\frac{1}{2}$ miles north of Ellsworth. Only 45 acres are under cultivation. The house is

30 by 40 feet on the ground and 5 stories high. There is no shade near it, not even a tree, a veranda, or a shed. The well sometimes fails, but there is a good spring at a distance of 25 rods from the house.

The sleeping rooms are comfortable but are accessible to each other. The sexes are not effectually separated at any time. All eat together with the family of the overseer, except the epileptic, the insane woman, and a blind old man who is indecorous at the table.

There is a curious case here of an old married couple, 80 and 79 years old, who deeded their property, worth two or three thousand dollars, to the county, on the condition of being taken care of for the remainder of their lives.

N. Travis, overseer, receives the use of the farm and \$1.75 a week for the care and maintenance of each pauper under his charge.

POLK COUNTY POOR-HOUSE, Lincoln Center. Visited August 5.

Four inmates on the day of the visit, of whom 2 women were insane. The males were a disabled man and a feeble minded boy of 15 years. The parents of the boy claim not to be able to support him, although they support themselves without assistance.

The farm of 160 acres is situated on the margin of one of the numerous lakes of Polk county, five miles west of Lincoln Center, and remote from general travel at present, though the vicinity is likely to be quite thickly populated in the course of years. A part of the house was burned last winter, leaving only about 16 by 24 feet of loosely built, clapboarded, but unfinished building for the use of overseer and paupers. The remaining part of the house is afflicted with bed-bugs, so that the family and all the paupers, except one of the insane women, sleep in the barn during the summer months. The barn is a large and good one, but there are no sheds on the premises. The farm is better fenced than most of those in the neighborhood.

Very little system is shown in the treatment of the paupers, but the overseer evidently does as well by them as he knows how to do with the facilities at hand. He receives the use of the farm and \$2 a week for each pauper, as a recompense for his services.

PORTAGE COUNTY POOR-HOUSE, Stevens Point, visited April 2.

Seven inmates on the day of the visit of whom 5 were men and 2 women, one of the latter being insane.

The premises were in very good condition, the rooms clean and the house altogether comparing very favorably with the average farm house of the state.

No systematic means are used for the separation of the sexes, and the two women are occasionally quite troublesome in various ways. The paupers are in the immediate charge of a matron, who finds the duties of her position very perplexing at times. Water is plentiful, but its use is not systematized. The beds are clean and comfortable, and the food plain and wholesome, as are also the clothes of the paupers.

The house is rented by the county, which contracts with the overseer and his wife to board and care for the poor for \$3 per week each, for such as do not need special attendance.

Mayor McLean, of Stevens' Point is the superintendent who has most direct supervision of this establishment.

RACINE COUNTY POOR-HOUSE, Union Grove. Visited January 30.

Number of inmates at this date, 18, of whom 11 are males and 7 females, and all insane except 2 males and 3 females. All in the house are of foreign birth but 3.

Great improvement has been made here since our visit last fall. Two additional coal stoves have been placed in the main hall, which, with the new bed comforters, make the means of warmth to the inmates all that can be expected until a new house is built. The basement rooms are still in bad condition, however, though further improvement is promised.

The sexes mingle promiscuously in a common room during the day, but sleep on separate floors. There is no pauper family here, nor any child among the inmates. There is still a lack of system in relation to personal cleanliness, some of the women having no change of underclothing now. Medical attendance is contracted for by the year, but some of the inmates complain that they do not receive all they need.

A visit was made to the house this day by a committee from the county board of supervisors, who state that the changes necessary to insure a proper degree of comfort to the paupers will be made immediately.

This poor-house was visited again during the summer by Mr. Tilton, who reported that the promise of the committee from the county

board had been fulfilled, and that the institution was then in as good condition as appeared to be practicable. John Deitrich, overseer.

RICHLAND COUNTY has no poor-house. The amount paid by the county for pauper expenses during 1876 was \$311.59. In addition the several towns took care of such paupers as were residents therein.

ROCK COUNTY POOR-HOUSE, Johnstown. The date of Mr. Tilton's visit to this institution cannot be given here, for the reasons mentioned in the introductory remarks. The condition of the premises was verbally stated to have been very good, generally.

ST. CROIX COUNTY POOR-HOUSE, Roberts' Station. Visited March 31.

Number of inmates, 9, of whom 2 are women. One of the latter is epileptic, and the other is 87 years old. Of the men, one is insane, one paralytic, and one idiotic.

The main building is a large one, of wood, and with capacity for about 20 inmates, besides the family in charge. There is also a small wooden building, with 6 gloomy cells opening on an outside corridor. The cells have no light except through transoms over the doors. This latter building is not much used now. The farm has 160 acres, besides 40 acres of woodland at some distance. The barn is a good one, and a combined granary and wagon-house has been built lately.

Well water is plentiful and rather soft. There is no cistern. The cellar is dry and kept in good order. There are no sewers, but the natural drainage of the place is unusually good. Ventilation is poor, and the paupers do not like open windows. The beds are of straw, with blankets for men, and sheets in addition for women.

In 1876, the expenditures, including wagon-house and fencing, amounted to \$7.35 weekly per capita, but a contract has now been made by which the overseer receives 85 cents a week for each pauper, besides the use of the farm, eight cows, a span of horses, and the usual implements for farming. Heman Dodge, overseer. Post-office address, River Falls, Pierce county.

SAUK COUNTY POOR-HOUSE, Reedsburg. Visited July 18.

Thirty-nine inmates, of whom 16 are women, 18 men, and 5 chil-

dren. Of the latter one is a deformed boy of 7 years old, one is epileptic and another idiotic, these two being 12 and 18 years old, and the remaining two are infants, both illegitimate, and both born in the house within a few weeks after the reception there of the mothers.

The farm comprises 126 acres. The main building is of brick, and a wooden, one-story building with 12 cells is used for the insane. There are two other small wooden buildings, one of them being used for a laundry and the other for hospital purposes. There is no privy sewerage. The well is 81 feet deep and the water is raised by wind power.

The sexes eat in the same room but not at the same table. There is no communication between the dormitories, which are crowded to the extent of 5 persons in one of the bed-rooms. The ventilation is by windows and transoms. Good straw beds and plenty of bed covering. Good and sufficient cellars. Two furnaces for heating the house.

Anson Warren, overseer, receives a salary of \$950 a year and the services of 2 female domestics and one hired man.

SHAWANO COUNTY has no poor-house.

SHEBOYGAN COUNTY INSANE ASYLUM, Winooski. Visited May 15.

At this date there were fourteen inmates, of whom seven were men and seven women.

This institution was built by Mr. G. S. Jewett last year, for the care of the dependent insane of the county, whom he had contracted to take charge of for three years at the rate of \$4 per week for each inmate. The building was described in our last report. It is not yet entirely finished, as there is some lathing and plastering to be done.

The sexes are properly separated, and the inmates appear to be generally comfortable. Two of the males are confined to their cells for the greater portion of the time. The diet is — for breakfast, bread and butter, meat, potatoes, coffee; for dinner the same, with the addition of vegetables; for supper, bread and butter and tea or coffee, with something by way of relish.

The asylum has now been in operation nearly a year and a good sanitary condition has been preserved. No deaths have occurred, and there has been little sickness.

TAYLOR COUNTY has no poor-house, and no paupers except an occasional transient who becomes sick or disabled. The expenses of the county for taking care of such persons amounted in 1876, to \$755.24.

TREMPEALEAU COUNTY has no poor-house. We learned from the county clerk, Mr. A. R. Wyman, that two insane women had their board paid for by the county at the rate of \$2 and \$2.50 per week, the woman in each case being boarded by her brother. The county has allowed sums amounting to \$237.29 to various towns for taking care of tramps during 1876.

VERNON COUNTY POOR-HOUSE, Viroqua. Visited August 27.

At this date there were 25 inmates, of whom 17 were males and 8 females, 1 male and 1 female being insane. The average is 5 or 6 more.

The farm comprises 160 acres, of which 96 are pasture and meadow. There are also 40 acres of timber at a distance of 4 miles, belonging to the institution. The house is a tolerably good one, of wood, 2 stories high, with a one story building of 4 rooms for the insane. The latter building has a yard attached. There is a good barn, and the out-buildings are in good order. The upper story of the main building and two beds on the lower floor are used for the men. The women sleep in rooms on the ground floor. The sexes eat together. No ventilation except by doors and windows.

There is no child here but an idiotic boy of nine years old, whose mother and grandfather are both inmates. The mother has "fits," but their character was not learned. The mother and son came here in July of last year.

The paupers are apparently well taken care of. The beds are good, and sufficient pains are taken with the heating arrangements.

Heredity in pauperism is more visible here than in any other poor-house in the state. Besides the three generations spoken of above, there are four of one family — three men and one woman — all idiotic or imbecile, but physically healthy and strong. Their parents were first cousins. Two of the women are epileptic and two feeble minded.

John Friedel and wife have charge of the house and farm, at a salary of \$650 a year, out of which he has to pay for any hired

help that may be needed. The hired help has cost \$250 since last November.

WALWORTH COUNTY POOR-HOUSE was visited by Mr. Tilton, and reported, verbally, as in good condition, but the notes of the visit are not recorded for the reason heretofore given. The poor-house is one of the best in the state. For items in relation to the work of the past year see tables, pages 143 and 144.

WASHINGTON COUNTY POOR-HOUSE, West Bend. Visited May 15.

Number of inmates 39, of whom 2 men and 2 women are insane, and one woman epileptic.

The farm comprises 196 acres, and is cultivated in an unusually thrifty manner. It is fenced with rails for the most part, and has good barns, outhouses and fences. The poor-house is of stone, and hardly large enough for the number of inmates. There are two good wells and a cistern.

The number of paupers crowded into this house makes impracticable the complete and effectual separation between the sexes that ought to exist in such a place. One unmarried insane woman came here 12 years ago with an idiotic son 4 years old. After remaining for 8 years she gave birth to another son, and all three are now county charges in the house. The sleeping rooms of the sexes are on different floors, and they are kept apart as much as possible. There is only one case of a married couple living together, and these are Irish people of 79 and 78 years old. There are more children in the house than ought to be. Three of them were brought last week by their mother, two of them being girls of 1 and 4 years and the other a boy of 6. There were three others here before, who belonged to one family, two girls aged 12 and 6, and a boy of 10. Besides these are the two children of the insane woman mentioned above, and who is now in the family way again, expecting to be confined this month. Another woman who came here January 26 expects confinement in June.

The beds and bedding are remarkably good. Ventilation has little attention, and sewerage none. Slops are thrown upon the ground about the house, and the privy is provided with a vault.

The overseer, Lenhard Horlanus, receives \$350 a year and board for the services of himself, wife and three daughters. One hired

man is furnished by the county. The farm is situated eight miles southeast of West Bend.

WAUKESHA COUNTY POOR-HOUSE, Waukesha. Visited May 8.

Forty-eight inmates on the day of the visit, of whom twenty-five are men, fourteen women, and nine children under fourteen years of age. Five of the women and two of the men are insane, and one woman idiotic.

There has been considerable improvement made in the buildings since last year, in which work the labor of paupers has been utilized. A carriage and wagon house, corn-house and wood-house have been built at an extra expense to the county (besides materials) of less than \$100.

The sexes are not very effectually separated except in the insane department, where the inmates are to a great extent confined in cells. A man named Larsen committed suicide here within the past year, leaving a wife and 4 children in the institution. The reason of his suicide was supposed to have been a demand from the overseer that he should do work on the place. An insane woman died from inanition, refusing to take food.

Sewerage is not very good yet, but is improving from year to year. The rooms of the paupers are fairly comfortable. Farm comprises 165 acres. The cost of maintaining the paupers was \$1.30 per capita per week, including what was raised on the farm.

J. T. Morris, overseer, receiving a salary of \$700, from which he had to pay a young hired man \$200. A hired girl is furnished by the county at \$2.25 a week.

WAUPACA COUNTY POOR HOUSE, Royalton, visited June 18.

At this date there were 38 inmates, of whom 5 were imbeciles and 1 (man) crazy.

This poor-house was begun in 1873, and inmates were admitted the same year. At that time the farm was mostly covered with woods, stumps and stones, but it has since been changed to an excellent piece of real estate. The overseer acts as poor superintendent, also, and attends to the outside poor. The whole pauper expenses of the county last year were \$4,900.

The building is an excellent one, for a wooden house, is three stories high, and of good appearance. The cellar is small. A small stone building in the rear, with cells, is used for the insane.

Everything about the premises is in good order except the kitchen sewer, which discharges into the hog-yard and emits a stench which is neither pleasant nor healthful. The stock has to be watered at the neighboring river. The rooms in the lower story of the main building are 13 feet high. In the next story they are about ten feet, and the third story, 8 feet. Only the first and second stories are at present used by the paupers, and many of the rooms in the house are unfinished and unused. This building is heated by stoves, but the small building for the insane by a furnace. The cells in the latter are furnished with closet seats. The general privy is over a vault. Soil sandy. In general the rooms are clean and comfortably furnished. and the dietary is that of a good farmer's family.

There are 4 married couples living together here, of whom 1 couple is still having children. These last have been here only about 2 months. Otherwise the sexes seem to be properly separated. Of the children, 3 are between 1 and 2 years, 2 are 3 years old and under 4, and the others are of the respective ages of 5, 6, 10 and 11 years. One of the children belongs to an imbecile woman.

John Gardinier, overseer, receives \$600 for the services of himself and wife. The salary was reduced from \$800 by an economical board of supervisors last year. A hired girl is also furnished by the county.

WAUSHARA COUNTY has no poor-house and no paupers.

WINNEBAGO COUNTY POOR-HOUSE. Visited April 18.

Number of inmates on the day of the visit 42, of whom 7 were children under 13 years old.

The house is a large one and in good condition throughout. An addition, begun in 1875, has just been completed. The cellars are large, dry and airy, and the stories above are warmed by two furnaces. The rooms and beds are quite neat and comfortable.

Of the seven children, there are only two who are over five years old, one being a weak-minded boy of thirteen, and the other a boy ten years old, apparently sound and healthy.

The sexes eat at separate table in the same room. Their sitting rooms and dormitories are well separated from each other.

At the date of the overseer's annual report, November 1, 1877, there were 48 paupers in the house. Of the whole number (74)

who had been supported for any length of time during the year, 12 persons were over 70 years of age, and 12 (5 males and 7 females) were insane.

N. Blake is the overseer and is paid \$600 for the services of himself and wife. He is also furnished with provisions, one hired man and one hired girl, 4 horses and 4 cows. As he was not at home at the time of our visit of inspection, some important items of information were not obtained.

WOOD COUNTY is not provided with any arrangement for the care of county paupers.

V. PRIVATE BENEVOLENT INSTITUTIONS.

The benevolent institutions established by private corporations are of great importance and value to the public, as the work performed by them is done more cheerfully, more effectively and more cheaply than it could probably be accomplished by governmental machinery. These institutions take care of the sick who are able to take care of themselves when well, and who would be out of place in poor-houses. They take charge of homeless children, for whom they provide homes as soon as practicable; and they lend a helping hand to the friendless, and put such persons in a way to provide for themselves by the honest work of their own hands.

Only one of these institutions — the Milwaukee Home for the Friendless — received pecuniary aid from the state during the past year, but with two or three exceptions, they have been inspected by members or the secretary of the board, and have been found in excellent condition, and strictly engaged in their respective duties.

The following notes of the work and present condition of these establishments are taken, for the most part, from their annual reports to this board:

CADLE HOME, Green Bay.

This institution was organized May 1, 1872, and has real estate valued at \$5,000, personal property estimated at \$500, and an indebtedness of \$1,000 on the building. Its income from private parties for the support of individual inmates has been \$192.30 du-

ring the year ending October 31, 1877, from donations \$594.60, and from all other sources \$329.15. It has received no appropriations under the law.

Its total expenditures for the year have been \$1,162.97, of which \$13.05 were for clothing, \$21.15 for medicines, \$104.95 for fuel, \$46.43 for furniture, \$150.57 for miscellaneous purposes, \$203.92 for permanent improvements, \$382.23, for subsistence and for salaries — matron, cook and nurse — \$240.72.

During the year there were 79 persons received into the home, which, added to the number, 26, present October 31, 1876, makes a total of 105 relieved during the year. Of these, 5 died and 75 were discharged. One left without permission, 1 was transferred and 3 children were adopted.

There were 17 males and 31 females over 16 years old, all hospital patients. Those under 16 included 23 males and 27 females, of whom 4 were hospital patients. Of the whole number, 21 were not residents of the county. James S. Baker, secretary; J. D. Williams, treasurer.

CATHOLIC ASSOCIATION, St. Nazians, Manitowoc county.

The institution was organized in 1854 and has real estate valued at \$20,000, including a building worth \$10,000. Its personal property is valued at \$3,000, and it has a debt of \$12,000 on the real estate.

The receipts for the year were \$3,000, of which \$625 was from Manitowoc county, \$100 for support of individual inmates and \$223 from donations and voluntary contributions.

The total expenditures were \$2,900 of which \$400 was for amusement and instruction, \$700 for clothing, \$100 for medicine, \$200 for farm and barn expense, \$100 for furniture, \$480 for live stock, \$25 for manufacturing, and \$895 for miscellaneous purposes, nothing for salaries and wages. Much of the income is derived from the work of persons having their homes in the institution. The total number of others supported during the year was 95 of whom 10 left without permission; 23 were males over 16, and 47 were females above that age; 10 males and 25 females were children under 16: of the whole number of admissions 40 are not residents of Manitowoc county. Anton Stoll, manager.

HOME FOR THE FRIENDLESS, Milwaukee.

Organized in 1867. Value of real estate \$8,000; personal property, \$500; building, \$2,500.

A statement by the treasurer, Mrs. G. E. Collins, shows the financial status of the institution to be as follows:

RECEIPTS.

Cash on hand Oct. 1, 1876.....	\$800 99
Fire sufferers' reserve.....	1,000 00
Subscriptions and donations.....	1,504 29
Board Young Woman's Home.....	962 87
Laundry	369 95
Restaurant	199 06
Thanksgiving donation.....	11 00
Morning Light Missionary Society.....	20 00
Cantata of "Esther"	221 68
Party at Liedertafel Hall.....	10 50
Jurors' and appraisers' fees.....	15 48
Interest	98 29
State appropriation.....	500 00
Total.....	<u>\$5,648 56</u>

DISBURSEMENTS.

Groceries and vegetables.....	\$1,866 15
Printing and stamps.....	23 00
Meats and fish.....	723 61
Matron's services	500 00
Servants' hire.....	227 00
Services in laundry	147 00
Coal and wood.....	255 70
Medicines and sundries.....	86 42
Repairs and labor on premises	104 28
Charity and assistance to inmates.....	16 29
Hardware and household goods.....	118 59
Insurance	18 75
Gas	29 25
Milk	108 20
Water tax	24 00
Ice.....	9 00
Collector's services.....	25 00
Fire sufferers' reserve.....	1,000 00
Cash on hand.....	366 32
Total.....	<u>\$5,648 56</u>

From the annual report of Mrs. William L. Dana, secretary of the home, we make the following extracts showing in brief the nature and extent of its work:

"During the first year of the Home for the Friendless 155 were received and cared for; in this tenth year there have been 560. Of this number 56 were children, the remainder aged and feeble women, servants, widows, and deserted wives, representing every form of destitution and desolation. The amount of aid afforded to the various applicants is not all comprehended in

the actual shelter of the inmates. Working women have been established in rented rooms with donations of furniture, bedding and fuel; situations have been obtained for servants from the country; tickets procured for destitute travelers, and five inmates have been given for adoption in good homes.

"In the two younger branches of the institution, the Young Woman's Home and the Restaurant, this effort to assist the workers is still further carried out. The former was organized in April, 1878, to provide for young women without homes in the city, whose wages are too limited to secure for them a safe and comfortable boarding place elsewhere. The amount received from them is intended to fully meet, yet in no case to exceed the expense actually incurred for them. In this way, while it proves a genuine charity to this most deserving class of young women, it causes no draft upon the resources of the Home for the Friendless. This department has never in a single instance interfered with the original work; the room occupied by these boarders has never been made the excuse for the rejection of a single applicant. The Restaurant, established in May, 1876, is designed to be an assistance to poor women whose daily labor and narrow lodgings render it difficult for them to prepare suitable food for themselves and their children. A large number have availed themselves of this opportunity to procure wholesome food at moderate prices.

Miss Myrick has continued in charge of the work of the Home, and has brought to her duties the same faithful oversight, the same energy, tact and judgment which have rendered her services valuable in the past. The Board has sustained an irreparable loss in the death of Mr. Keeler. His untiring efforts to improve the financial condition of the Home, and his unfailing interest in its welfare, will be deeply missed and gratefully remembered."

HOME OF THE FRIENDLESS, Fond du Lac.

No report was received from this institution for the year ending October 31, 1877, the blank for that purpose having been delivered to the wrong person by a mistake in the post office at Fond du Lac. From the printed report of the society for the year ending April 11, 1877, we make the following extracts:

Thirty-nine persons received assistance at the Home during the past year, fourteen of whom are inmates at the present time — April 11, 1877. Several have been provided with means to go to their friends in different towns and counties, and five have been sent out of the state.

The general health of the inmates has been good, and there has been but one death during the year.

As a rule, all have rendered what assistance they could towards defraying the expenses of the institution. Eighty-five yards of carpeting have been made, besides knitting and other work, amounting to \$40.48.

The money received for board from the inmates amounts to \$98.50.

FINANCIAL REPORT.

Cash received from treasurer	\$475 46
Cash received from secretary	634 06
Bank interest on deposit	9 62
Total	<u>\$1,119 14</u>
Due bills received to the amount of	<u>123 62</u>

DISBURSEMENTS IN CASH.

Matron's wages	\$159 85
Servant's wages	108 25
Printing	25 60
Fuel	114 78
Groceries	247 49
Flour	75 07
Meat	45 85
Stoves	15 65
Dry goods and shoes	16 16
Medicine and burial expenses	11 80
Sending inmates to friends	14 75
Supplies furnished by matron, and sundries	92 76
Expended	<u>\$923 01</u>
Cash in treasury	<u>\$196 13</u>

The officers for 1877 are Mrs. W. H. Hiner, President; Mrs. E. C. French, Vice President; Mrs. J. R. Smith, Secretary; Mrs. Dr. Walker, Treasurer; Mrs. H. M. Jones, Matron.

INDUSTRIAL SCHOOL, Milwaukee.

Organized April 14, 1875. No real estate belongs to the institution. The value of its personal property is estimated at \$25,000. The receipts for the year ending October 31, 1877, were \$4,640.24 of which \$2,579.17 was appropriated by county boards, \$1,937.09 was furnished by voluntary contributions, \$102.18 for support of individual children, and \$10.13 from all other sources, exclusive of a balance of \$12.17 from last year.

The treasurer, Mrs. C. D. Adsit, makes the following report of the disbursements of the year, with the additional statement that the portion of the aggregate in excess of about \$3500 was used to pay bills incurred during the previous year.

Rent—15 months	\$812 50
Matron's salary—15 months	525 00
Assistant's salary	116 00
Teachers	369 60
Cooks	150 00
Wood and coal	145 12
Meats and fish	198 57
Milk	161 68

Groceries, flour and vegetables.....	970 61
Hardware, dry goods, etc.....	450 06
House-furnishing goods.....	137 93
Water service.....	18 00
Plumbing.....	75
Gas and coal.....	17 70
Medicine.....	80
Carriage hire.....	1 50
Stationery and printing.....	92 82

From the report of the secretary, Mrs. D. N. Johnson, we make the following extract:

In reviewing our work for the past year, we find much to encourage us. Even our financial condition is better than it was one year ago. At the close of last year we found that, aside from our permanent investment of \$1,500, we had but \$12.17 in the bank. The receipts for the past year have been \$4,640.74; disbursements, \$4,209.26; leaving a balance in the bank of \$443.65. Of this whole sum but \$533.70 has been collected by solicitation from house to house. This is probably owing to the continued financial depression, and to the prevalence of contagious diseases, some localities having been left entirely unvisited. We have still \$823.56 due from the counties for the board of inmates, which we hope soon to collect, while our permanent fund still remains untouched.

Our receipts from entertainments for the year have been only \$792.84, which is about one-third that of the previous year, the managers being averse to coming before the public in that way any oftener than is absolutely necessary.

We find that in our financial matters we have learned wisdom by experience. The improvement adopted by the house furnishing and supply committees, whereby the purchasing was done by one of their number, has materially lessened the expenses.

Our working force is much the same as last year, with the exception of dispensing with the services of an assistant matron. It was, however, found necessary to employ a resident teacher. The departure of Miss Edith Merriam, the competent and faithful day teacher, to make room for this experiment, was deeply regretted.

In the death of Miss Mary Mortimer, who occupied the place of chairman of the school committee, and formerly the office of vice-president, the school has lost one of its most faithful and efficient workers. Her co-laborers realize more and more what a strong helper, wise counselor and faithful friend they have lost. Owing to the peculiar circumstances of her death, much interesting information has not been discovered.

A short time since the Kindergarten system was introduced into the school Prof. and Mrs. Hailmann kindly volunteering their services gratuitously.

There are at present thirty-four children in the school. Since the last annual meeting twenty have been received; of this number seventeen have been committed by the courts, from the following counties: Milwaukee, 11

Dane, 8; Calumet, 1; Winnebago, 1; Iowa, 1. The remaining number are charity pupils. The whole number of children received since the organization has been 114; the average number in attendance during the year 28. Sixteen children have been found homes during the year; two adopted, three apprenticed as domestics, and eleven serving the trial term of three months previous to apprenticeship.

Our greatest hindrance is the lack of suitable buildings. Until this matter is remedied we cannot carry out fully our system of reform and the mental, moral and physical culture which is the ideal we are straining to attain; but we look forward, hopefully, knowing that God helps those who help themselves.

The children, with but three exceptions, have become contented and happy after being in the school a short time. Our facilities for restraint are physically very feeble, as we depend more upon the force of kindness than upon the bolts and bars. We have had but two escapes, one of them a young girl laboring under mental aberration.

The domestic work of the institution has been done by the inmates, under the direction of the matron. Three hundred and seventy-eight garments have been made, nine quilts and eighty-three yards of rag carpeting; added to this is fancy and other work. Idleness is not allowed, even the little boys knitting their own stockings. Mrs. Utz has devoted half an hour to teaching the little ones to knit during the two years past. Some of the work done by the children was awarded premiums at the State Fair. A worsted goods manufacturer in this city employs several of the elder girls.

The general good health of the children is a matter for gratification.

The school is performing a work, the value of which is almost inestimable, especially to the locality in which it is situated, and we heartily indorse the following remarks of the president, Mrs. W. P. Lynde, in her annual address. She says:

"A momentary glance at the past shows how, with hands empty of everything but skill to do what our hearts prompted, and our judgment approved, we set out to establish a home school for the neglected outcast girls and little boys of our state. 'With neither gold nor silver nor brass in' our 'purses,' with no political aspirations, nor personal ambitions, but moved by that which our eyes saw and our ears heard of want, and vice, and crime, relying upon contributions solicited from the public, we began this work, in faith mingled with fears, with courage, but many misgivings, but with hopes that have been more than realized. We builded better than we knew. We have proven the possibility of doing that which we feared could not be done. Public sentiment in sympathy with our purposes, approved and sustained our plans and methods; hence came legislation authorizing us to carry them out. The decisions of the court have affirmed the solidity of such legislation, the chief justice adding, 'These statutes reflect honor upon the legislative bodies which passed them, and upon the state.' He says in his opinion upon this

case: 'We have already given reasons for calling the statute humane, but there is another worthy of notice as showing the considerate and benevolent spirit in which it was framed. Women alone, or women and men, but not men alone, may incorporate themselves under the statute. Thus no Industrial School can be without the sex which is by nature best qualified for the nurture of children. Such charities are best committed to women in whole or in part, and in such lies the truest and noblest scope for the public activities of women, in the time which they can spare from their primary domestic duties. Such a statute, so framed and so guarded, is not an arbitrary assumption of meddlesome authority outside of the scope of the proper function of legislation, but is evidence that public charity is here losing the offensive and oppressive character sometimes attributed to it.'

MILWAUKEE ORPHAN ASYLUM. Established in 1850. Value of real estate, \$15,000, including buildings, valued at \$10,000. The value of the personal property is estimated at \$1,000. The receipts for the year ending September 1, 1877 were \$5,811.88, of which \$527 was paid for the support of individual inmates, and \$5,284.88 was received from donations and voluntary contributions, including a gift of \$1,000 from Mrs. Jane Redfield, of Burnett.

The total expenditures for the year ending November 30, 1877, were \$4,888.33, of which \$356 was paid for amusement and instruction, \$783.90 for clothing, \$311.83 for fuel, \$1,678.41 for subsistence, and \$1,126 for salaries and wages.

Thirty orphans have been received during the year ending October 31, 1877, making the total number supported during the year, 86. Twenty-two of these were returned to friends, twelve sent out for adoption, and one transferred. Since the foundation of the Asylum 941 orphans have been cared for here. The ages of those received during the year ending December 1, 1877, were: 2, 14 years of age; 1, 13 years; 12, 10 years; 10, 9 years; 9, 8 years; 11, 7 years; 12, 6 years; 8, 5 years; 7, 4 years; 6, 3 years; 8, 2 years.

Parentage — German, 36; American, 33; English, 8; Scotch, 2; Irish, 3; Swede, 3; Dane, 1.

The following extract from the matron's report shows that industrial education is not neglected in the asylum:

"The boys and girls help as much as such young children can about our domestic work, and, in addition to that, have knit 80 pairs of stockings, pieced 1 quilt; sewed carpet-rags, say 40 yards; and some of the girls did considerable mending. They knit and sew one hour each day and some of them, particularly the boys, do their work very nicely. They and their

teacher, Miss West, enjoy that hour together, and some of them want the time prolonged.

"Work done by the managers: Boy's jackets, 23; pants, 11; shirts, 67; drawers, 62; chemises, 61; underwaists, 19; skirts, 17; dresses, 67; aprons, 112; hoods, 6; pillow-cases, 43; sheets, 71; bedquilts, quilted, 8; bed-comforters, 14.

"Work done by the assistant matron — Boy's jackets, 41; pants, 94; dresses, 12; aprons, 3.

The following are the officers for the ensuing year: First Directress, Mrs. C Shepard; Second Directress, Mrs. S. S. Sherman; Third Directress, Mrs. E. Ladue; Treasurer, Mrs. J. H. Van Dyke; Secretary, Mrs. Wm. Pitt Lynde; Corresponding Secretary, J. H. Booth.

ST. AEMILIANUS ORPHAN ASYLUM, St. Francis.

This institution was organized in 1846, and possesses real estate worth \$9,500 of which the buildings are estimated at \$9,000. The value of its personal property is estimated at \$500. Indebtedness, \$6,200. Total receipts for year ending October 31, 1877, \$7,783.67, of which \$3,783.67 were from voluntary contributions and \$180 for the support of individuals.

The total expenditures for the year were \$7,745.57, of which \$300 was paid for amusement and instruction, \$1,200 for clothing, \$160.55 for medicines, \$192.79 for farm and barn expense, \$77.76 for furniture, \$116 for live stock, \$600 for manager's expenses and salaries, \$179.12 for miscellaneous purposes, \$299.35 for improvements, and \$3,900 for subsistence.

The total number supported during the year was 123, of whom 27 were received during the year. Of the whole number 3 died, 5 were adopted and 12 bound out to service. Twenty-seven were residents of other counties.

ST. LUKE'S HOSPITAL, Racine.

Organized 1871. Value of real estate \$7,400, including the building valued at \$5,500. The value of the personal property is estimated at \$800.

The receipts of the institution for the year ending October 1877, were \$1,625.06, of which \$726.22 was from voluntary contributions, \$50 for support of individuals, \$60 from the city for support of patients, \$55 from boards of supervisors, and \$274.80 bal-

ance from last year. The total expenditures were \$1,494.05, \$418.03 being for permanent improvements, \$445.64 for subsistence, \$480 for salaries and wages and \$149.38 for miscellaneous purposes.

One patient was present Oct. 18, 1876, and 28 were received during the year ensuing, of whom 1 died and the rest were discharged. The secretary adds the following paragraph to his report to this board.

There is a necessary expenditure of \$40 per month (\$480 per year) to the steward for the care of the institution, property, etc. Then \$4 per week is paid for the care and support of every inmate, the steward furnishing everything, including fuel, lights, food and nurses, except medicine and medical attendance, which are given by the physician gratuitously. We are weekly refusing admission to applicants simply because we prefer to have our income (which is principally from voluntary contributions) equal our expenditures at the end of every year. If we were certain of a larger income, we could care for four times the number of inmates, and at a much reduced expense, per capita. The item of \$419.03 for permanent improvements was solicited for that object. The new building was paid for from bonds raised by direct solicitation. For the annual support, we look to the voluntary contributions.

J. G. MEACHEM, Jr.,

Secretary.

ST. ROSE AND ST. JOSEPH'S ORPHAN ASYLUMS, Milwaukee.

These are two institutions under the management of the same board of trustees and general direction, and situated at a distance of about a mile from each other. The St. Joseph's asylum is for the youngest class of orphan girls, who are transferred to the St. Rose as they become large enough. Only girls are received into either institution.

The value of real estate and personal property is not reported. The receipts of the asylums for the year ending December 9, 1877, were \$7,666.94, of which \$1,247.43 were from voluntary contributions, and the other sources are not stated.

The expenditures for the year were \$11,000, of which \$1,525.08 was for clothing, \$103.89 for drugs and medicines, \$606.26 for fuel, \$373.16 for permanent improvements, \$5,862.44 for subsistence, \$165 for wages and \$2,364.17 for miscellaneous purposes.

On December 9, 1876, there were 160 orphans in the institutions, and 35 were received and 34 discharged during the year.

Of the whole number supported during the year, 8 were from

Dane county, 2 each from Sheboygan, Fond du Lac, Racine, Walworth, Washington, Wood, Vernon and Kenosha counties; 5 from Dodge county, 3 from Trempealeau county and 1 each from Rock and Ozaukee counties. About 19 are transients from other states.

E. O'Neill, secretary of the board of trustees.

ST. MARY'S HOSPITAL, Milwaukee.

This institution was not visited, nor was a report received from its managers during the past year.

Its valuable work is well known, however, and highly esteemed. It grew out of a small hospital established in 1848 during the prevalence of the cholera, by certain sisters of charity of the community of St. Joseph's. In 1857 three acres of land were conveyed to the sisters by the city of Milwaukee, and in 1857 they formed themselves into a corporation under the laws, having provided a hospital building. The hospital is partially supported by paying patients, but also obtains assistance from voluntary contributions of individuals and of the public through its representatives.

TAYLOR ORPHAN ASYLUM, Racine.

This institution was visited November 20, but no annual report has been received.

The asylum was incorporated in 1867, when 40 acres of land were bought and the erection of a building was commenced. It was opened for the reception of children July 16, 1872, and has been in successful operation since. Its income is derived from the interest of its endowment fund, which amounted, in 1875, to \$132,354.70, and has been found sufficient for its purpose.

Orphans are here kept in comfort and taught the rudiments of a good English education and of industry.

VI. SUPPLEMENTARY.

The laws relating to the State Board of Charities and Reform, have been published in several of the preceding reports of the board including that of last year, since which publication there has been no change in the laws, and they are therefore omitted here. The following are

THE BY-LAWS OF THE BOARD,
as amended at the meeting of July 17, 1877:

MEETINGS.

SECTION 1. The board shall meet at the office of the secretary in the city of Madison on the second Tuesday of April, at 7 o'clock P. M.

ANNUAL AND QUARTERLY MEETINGS.

The meeting in April shall be the annual meeting, at which time the annual election of officers shall take place. Other regular meetings shall be held on the third Tuesday in July, October and January, at such place as the president may direct.

QUORUM.

Three members shall constitute a quorum for the transaction of business; but a less number may adjourn from time to time.

EXTRA MEETINGS.

SECTION 2. Extra meetings may be held at such other times and places as the board may from time to time direct by resolution.

SPECIAL MEETINGS.

Special meetings of the board can be held at any time on the request of two members, filed by the secretary, stating the object for which the meeting is wanted. Upon receiving such request, the secretary shall immediately notify all the members of the board of the time and place of such meeting.

ORDER OF BUSINESS.

SECTION 3. At the regular meetings of the board the following shall be the order of business:

First.—Reading and approval of the minutes of all previous meetings that have not been read and approved.

Second.—Reports of officers.

Third.—Reports of committees.

Fourth.—Communications.

Fifth.—Business lying over.

Sixth.—Miscellaneous business.

At special meetings, the business for which the meeting has been called shall have precedence of all others; and no other business than that for which the meeting has been called shall be transacted at a special meeting except by unanimous consent.

OFFICERS OF THE BOARD.

Section 4. The officers of the board shall consist of a president, vice president and secretary. The president and vice president shall be elected at the annual meeting in April of each year. The secretary shall be elected at the annual meeting in April, and shall serve for the term of three years. All officers shall serve until their successors are elected, and prepared to enter upon the discharge of their duties.

DUTIES OF THE OFFICERS.

Section 5. The president shall discharge the duties usually devolving upon the office. It shall also be his duty to prepare quarterly the warrant required to draw the salary of the secretary of the board, as required by section 14 of the organic act, and to make the sworn statement to be filed with the secretary of state, in order to procure from the state treasurer the amount expended by the board, as a board, in the discharge of the duties of their office, as required by section 14 of the organic act. In absence of the president, the vice president shall act in his place in all respects.

DUTIES OF THE SECRETARY.

The secretary shall have an office in the city of Madison, where the books and papers belonging to the office shall always be kept, and where they shall always be accessible to the board, or any member thereof.

He shall be present at all the meetings of the board, keep correct records of their proceedings, and perform such other duties as usually devolve upon the office. He shall also perform such other duties as the board shall require of him by resolution or otherwise.

VISITING PUBLIC INSTITUTIONS.

SECTION 7. The charitable and penal institutions supported by the state, viz.:

Hospital for Insane at Madison.

Hospital for Insane at Oshkosh.

Institution for the Blind at Janesville.
 Institution for Deaf and Dumb at Delavan.
 Industrial School for Boys at Waukesha.
 State Prison at Waupun. And the
 House of Correction at Milwaukee.

Shall be visited at least quarterly by one or more members, and once by the entire board. Whenever practicable, the secretary shall accompany the members in their quarterly visits.

VISITS TO JAILS AND POOR-HOUSES.

SECTION 8. Visits shall be made to the jails, poor-houses and county prisons in the different counties of the state, if possible, so that each one shall be visited at least once in each year. These visits to be made, whenever practicable, by one member and the secretary.

PRESIDENT TO SUPERINTEND PLAN OF VISITATION.

The president shall superintend the execution of the plan of visitation, assigning to the secretary and members such a division of the work as he may judge best; and in making his appointments he shall give the members as early notice as possible, and in case a member finds it impossible to perform the work at the time indicated by the president, he shall immediately inform him of the fact.

INFORMATION TO BE GIVEN.

SECTION 9. Whenever any immediate improvements in the condition, or change in the management of any institution shall seem to be necessary, the secretary or the president shall communicate the facts in the case to the parties having charge of such institution. All such communications to be in writing, and a copy thereof put on file in the secretary's office. When the secretary, or any individual member of the board visits one of the public institutions of the state, or one of the poor-houses, jails, or prisons of any county, he shall be understood as representing the entire board, and shall possess all the right to make examinations and demand information that is conferred upon the board by law.

ACCOUNTS.

SECTION 10. All bills for expenses actually and necessarily in-

curred by the board in the discharge of the duties imposed upon them by the original act, and all bills for the traveling expenses of the members and the traveling expenses of the secretary, shall be laid before the board for their approval, before they are presented to the secretary of state for payment, and a record of the same shall be made by the secretary of the board.

EXPENSES OF THE BOARD.

In accordance with our general plan of bringing all expenditures mentioned in this report to the basis of the report of the state treasurer, we present the following statement of disbursements from the treasury on account of expenses of this board, for the year ending September 30, 1877:

A. E. Elmore, member of board, expenses.....	\$150 53
H. H. Giles.....do.....do.....do.....	164 24
C. H. Haskins....do.....do.....do.....	48 40
W. W. Reed.....do.....do.....do.....	121 17
H. C. Tilton.....do.....do.....do.....	259 12
T. W. Haight, secretary of board, salary.....	1,500 00
T. W. Haight, secretary of board, expenses.....	412 66
A. E. Elmore, Racine county poor-house investigation.....	36 35
C. H. Haskins....do.....do.....do.....do.....	24 60
W. W. Reed. ....do. ....do.....do.....do.....	26 38
H. C. Tilton.. do.....do.....do.....do.....	110 35
T. W. Haight....do.....do.....do.....do.....	16 20
A. E. Elmore, expenses attending Northern Pris. Cong.....	85 00
C. S. Hoyt, proceedings Saratoga Conference	41 00
H. H. Giles, Racine county poor-house investigation.....	60 53
Total.....	<u>\$3,056 53</u>

It is proper to say in this connection, that all the expenses of the poor-house investigation, and many of the other items, represent expenditures made by members of the board during the summer and early autumn of 1876, and were reported in our volume of that year.

NOTE RELATING TO CHRONIC INSANE.

In the article on the chronic insane, in the first part of this report, an error was made in relation to the expenses of the Willard asylum, into which we were led by a tabular statement in the consolidated New York reports. A foot note to the table in question, overlooked by us at first, explains that certain items are omitted in obtaining the figures of \$2.85 per capita of expenses in the asylum, and that when those items are included the total weekly cost per capita becomes \$3.20. Upon this basis of comparison the annual saving of the asylum plan over the cost on the basis of the present Wisconsin estimates would be only about \$50,000 a year instead of about \$80,000. As the Rhode Island asylum takes care of its chronics for a little more than \$2 per week, however, it is not probable that the figures given by us as representing the probable saving to the state are any too large. Indeed we have endeavored to avoid raising any expectations which might fail in the realization, in regard to this matter, and we believe that our opinions, as expressed in the article, are reasonable and moderate, and strictly within the limits of probability.

CONFERENCE OF CHARITIES.

A committee consisting of the president of the board and Rev. H. C. Tilton were delegated to attend the conference of state boards of charities, which was held in connection with the American Social Science Association, at Saratoga, N. Y., September 5-6, 1877. The president made the following report, Mr. Tilton being unable to participate in the same on account of illness:

To the State Board of Charities and Reform:

The Conference of Charities at Saratoga, held in connection with the meeting of the American Social Science Association, in September, 1877, was one of the most interesting that has yet taken place, and many papers of great value were submitted. The first session began at 10 A. M., on the 5th of September.

The conference was called to order by the chairman of the com-

mittee of arrangements, Dr. Charles S. Hoyt, secretary of the New York State Board of Charities, who announced that, owing to illness, Governor Robinson of New York was prevented from being present and presiding. On motion, the Hon. John V. L. Pruyn, president of the state board of charities of New York, was called to the chair, and gave a short address, mainly descriptive of the charitable institutions of his state.

A business committee was appointed to report the attendance in this conference, the order of business, and the standing committees for next year, and, after due deliberation, presented the following:

REPORT OF BUSINESS COMMITTEE.

There are at present in the United States nine state boards or commissions charged with the general oversight of charitable work in the states where they exist. These boards, named in the order of seniority, are:

1. The Massachusetts Board of State Charities, established in 1863.
2. The New York State Board of Charities, established in 1867.
3. The Ohio Board of State Charities, established in 1867; reorganized in 1876.
4. The Rhode Island Board of State Charities and Corrections, established in 1869.
5. The Pennsylvania Board of commissioners of Public Charities, established in 1869.
6. The Illinois Board of State Commissioners of Public Charities, established in 1869.
7. The Wisconsin State Board of Charities and Reform, established in 1871.
8. The Michigan Board of State Commissioners for the supervision of the penal, pauper, and reformatory institutions, established in 1871.
9. The Connecticut State Board of Charities, established in 1873.

A special organization has existed as a state board in New York since 1847 — the Commissioners of Emigration.

The present officers and members of the state boards are as follows:

RHODE ISLAND. (Term of office, six years.)

George I. Chace, Providence, chairman; William W. Chapin, Providence, secretary; James M. Pendleton, Westerly; Thomas Coggshall, Newport; William H. Hopkins, Providence; Job Kenyon, River Point; Allen C. Mathewson, Barrington; Alfred B. Chadsey, Wickford; Stephen R. Weeden, Providence.

PENNSYLVANIA. (Term of office, five years.)

G. Dawson Coleman, Lebanon county, president; Heister Clymer, Berks county; William Bakewell, Pittsburg; A. C. Noyes, Clinton county; George Bullock, Montgomery county; Francis Wells, Philadelphia; Mahlon H.

Dickinson, Philadelphia; Diller Luther, M. D., Reading, secretary; Andrew J. Ourt, M. D., Philadelphia, statistician.

ILLINOIS. (Term of office, five years.)

G. S. Robinson, Sycamore, President; J. C. Corbus, Mendota; J. M. Gould, Moline; J. N. McCord, Vandalia; W. A. Grinshaw, Pittsfield; Rev. Fred. H. Wines, Springfield, secretary.

WISCONSIN. (Term of office, five years.)

Andrew E. Elmore, Fort Howard, president; William W. Reed, M. D., Jefferson, vice-president; Hiram H. Giles, Madison; Rev. H. C. Tilton, Janesville; Charles H. Haskins, Milwaukee; T. W. Haight, Madison, secretary.

MICHIGAN. (Term of office, six years.)

Charles I. Walker, Detroit, chairman; Charles M. Croswell, governor, *ex officio* member, Adrian; M. S. Crosby, Grand Rapids; Uzziel Putnam, Pokagon; Rev. George O. Gillespie, Grand Rapids; Henry W. Lord, Detroit, secretary.

CONNECTICUT. (Term of office, five years.)

Benjamin Stark, New London, chairman; Samuel F. Jones, Hartford; Dr. H. W. Buel, Litchfield; Mrs. Jennie P. Hoyt, Stamford; and Miss Lucy Alsop, Middletown.

Six of these State Boards of Charities were represented in the Conference, as follows:

Massachusetts, by Charles F. Donnelly.

New York, by Charles S. Fairchild, attorney-general, *ex officio* member; John V. J. Pruyn, president; W. P. Letchworth, vice-president; Mrs. O. R. Lowell, Edward W. Foster, Theodore Roosevelt, John C. Devereux, and Dr. Charles S. Hoyt, secretary.

Rhode Island, by George I. Chace, chairman, and Thomas Coggsball.

Illinois, by J. N. McCord.

Wisconsin, by A. E. Elmore, chairman, and Rev. H. C. Tilton.

Michigan, by Henry W. Lord, secretary.

Other delegates, representing kindred boards, associations and associations, were also present.

We would recommend that the order of business set forth in the printed programme of this conference be followed, except when changed by special vote of the conference. For the work of the ensuing year, we would recommend the same number of committees as at present, but with many changes of membership, as follows:

1. A committee on Insanity, for which we would recommend Dr. J. S. Conrad, Catonsville, Md.; Dr. Diller Luther, Reading, Penn.; Dr. W. W. Reed, Jefferson, Wis.; Rev. F. H. Wines, Springfield, Ill.; Dr. Pliny Earle, Northampton, Mass.; and Dr. H. B. Wilbur, Syracuse, N. Y.

2. A committee on Public Buildings for the Dependent Classes, for which we would recommend Dr. W. Wylie, New York; H. H. Giles, Mad-

son, Wis.; J. N. McCord, Vandalia, Ill.; F. B. Sanborn, Concord, Mass.; Frederick Law Olmsted, New York.

3. A committee on Dependent and Delinquent Children, for which we would recommend Rev. H. C. Tilton, Janesville, Wis.; William P. Letchworth, Portageville, N. Y.; William A. Bacon, St. Louis; Charles L. Brace, New York; Thomas Coggeshall, Newport, R. I.

4. A committee on Penal and Prison Discipline, for which we would recommend Z. B. Brockway, Elmira, N. Y.; Rev. Edward E. Hale, Boston, Mass.; Rev. J. L. Milligan, Pittsburg, Penn.; Joseph Perkins, Cleveland, O.; Chas. H. Haskins, Milwaukee; Thomas S. Wilkinson, Baltimore, Md.; Francis Wayland, New Haven, Ct.

5. A committee on Statistics and Legislation, for which we would recommend Dr. A. J. Ourt, Philadelphia; Dr. Charles S. Hoyt, Albany, N. Y.; Charles D. Wright, Boston, Mass.; Rev. A. G. Byers, Columbus, O.; Charles F. Coffin, Richmond, Ind.; Rev. Augustus Woodbury, Providence, R. I.; T. W. Haight, Madison, Wis.

6. A committee on Medical Charities, for which we would recommend Howard Potter, New York; Dr. Nathan Allen, Lowell, Mass.; Charles I. Walker, Detroit; Dr. S. Weir Mitchell, Philadelphia; Murray Shipley, Cincinnati; Dr. Henry B. Wheelwright, Taunton, Mass.; Henry E. Pellew, New York.

(Signed)

THEODORE ROOSEVELT,
F. B. SANBORN,
A. E. ELMORE,
GEORGE I. CHACE,
HENRY W. LORD,
Business Committee.

The report was accepted, and the several committees named were appointed, with power to fill vacancies and add to the number of members.

The chairmen of the state boards were called upon to report concerning the public charities of their respective states. We give the response of Wisconsin in full, as presented by Mr. Elmore:

"Wisconsin had a population in 1840 of 80,945; in 1850, of 805,391; in 1860 of 775,881; in 1870, of 1,054,670, and in 1875, of 1,236,729. As a state, Wisconsin was twenty-nine years old on the fifth of last June, and since 1850, has expended for penal and charitable institutions, \$6,000,000. Wisconsin has two insane hospitals; the Wisconsin Hospital, located at Madison, had, on the first day of August, 1877, 876 patients; the Northern Hospital at Oshkosh had on that day 554 patients. The Wisconsin Institution for the Education of the Blind, located at Janesville, has completed its new buildings, in the place of those burned, at a cost of \$160,000, and had, in 1876, an average of sixty pupils. The Institution for the Deaf and Dumb, located at Delavan, had last year an average of 145 pupils. The Industrial School for Boys at

Waukesha, had on the first of August last, 361 pupils. The State Prison is located at Waupun. The first appropriation for its erection was made in 1851, and a main building and one wing were completed soon after. In 1871 an additional wing was built, but our numbers have been so few that it has never been used as a prison. In 1871 there were confined therein an average of 203 convicts; in 1872, 201; in 1873, 180; in 1874, 203; in 1875, 240; in 1876, 261; and on the first day of August last, 282. Besides the state prison, there is in Milwaukee county, a house of correction, where all classes of criminals may be sent. On the first of August there were confined therein 107 persons, most of them for short terms of from five to thirty days; one was received on that day sentenced for ten years for arson. Of this number, 88 would have been sent to state prison had there been no house of correction, and this, added to the number in the state prison, makes a total of 320 convicts. Compared with adjoining states, Wisconsin has less than one-half as many criminals in confinement according to her population, and if justice is as rigorously administered within her borders as among her neighbors, she must have a better people.

"The State Board of Charities are having a great deal of work done this year. Of the sixty counties of the state, more than fifty have been visited, and their jails and poor-houses thoroughly examined. Before the close of the year every county will have been visited at least once, and many of them several times. Great improvements have been made in our jails and poor-houses since the State Board of Charities began their visits. The pressing want of Wisconsin, at this time, is a suitable place for the chronic insane, 300 of whom are now in our poor-houses and jails. Last winter a law was enacted directing the State Board of charities to ascertain and report to the Legislature, next winter, the number of feeble-minded or idiotic children in the state, with a view to taking measures to their improvement. This is now being done.

"We had in Wisconsin a Soldiers' Orphan Home; over 600 participated in its benefits from 1866 to 1876. The legislature of 1876 gave it to the State University, and the legislature of last winter made a small appropriation for those still needing assistance. At Madison, the capital of the state, is the State University, complete in all its parts, and connected with the model farm of the state. The University, though young in years, bids fair to equal any college in the eastern states. Wisconsin has four Normal Schools: at Platteville, Grant county; Whitewater, Walworth county; Oshkosh, Winnebago county; and River Falls, Pierce county. The denominational and private colleges and institutions of learning in the state are doing much for our educational interests, and our common schools are fully up with the times in every respect.

"Young as is our state, we feel proud of her benevolent, educational, and penal institutions — second to none in our land."

This statement was followed by a report from Rhode Island by Prof. Chace, who cited a novel provision of the laws of his state

authorizing the State Board of Charities to remove prisoners from the Providence jail to the work-house or back again, at their pleasure. Of the insane he said that only chronic cases were admitted to the asylum. The institution has thus far worked extremely well. Quite a number of persons, supposed to be incurable, and sent from the Butler Hospital, through the influence of time, and perhaps a larger liberty, have recovered and left the asylum in apparent soundness of mind. The state institutions are situated at Cranston, about seven miles from Providence.

Later, Mr. Coggeshall said in relation to the same institution that he felt satisfied with the method of caring for the insane in Rhode Island. They had cottages accommodating about sixty, well lighted, with fine surroundings, without a bar to the windows, and with not a door shut from morning till night. The food and the clothing was as good as it ought to be. It did not cost them forty thousand dollars for buildings, and, unless he made a mistake, the cost of feeding and clothing them did not exceed two dollars and seven cents a week each, yet he was not ashamed to bring any of them into the presence of Her Majesty.

Mr. Henry W. Lord, secretary of the Michigan Board of Charities, made a statement in relation to the reform schools of his state, the discipline of which had been modified with good results. He added that a second insane asylum was approaching completion, which would make a total capacity for 1,000 patients; which, it is thought, will be nearly sufficient for the needs of the state.

The legislature, at its last session, passed a law, making all the indigent insane a state charge after the counties shall have borne the expense for two years. It is expected that the effect of this will be to clear the poor-houses of this very miserable class.

From Maryland a bad condition of affairs was reported by Dr. J. S. Conrad, who quoted freely from the statements of Dr. Chancellor, of the state board of health. The indigent insane, according to the report, were distributed among jails and almshouses were quite neglected, "the inmates being huddled together without discrimination of age, sex or condition, and commingling in unrestrained licentiousness." The prisons were equally objectionable, and were characterized as "seminaries of crime, where purity itself could not escape contamination." The reformatories were not calculated to attain their desired results. Dr. Conrad said he could

indorse the statements of this report. He had accompanied Dr. Chancellor in his visits, and had seen for himself the state of things described. The public attention is now thoroughly aroused upon the subject, and he expected to see the dawn of better things. Already the reports which have been received from many of the almshouses visited, indicate a spirit of improvement, heretofore unknown.

Dr. McCord, of the Illinois Board of Charities, mentioned the act of April 15, 1875, by which no money, either on ordinary or special appropriation can be paid out for the benefit of any institution except upon the warrant of the auditor, and the auditor cannot draw his warrant except upon an order of the board of trustees of the several institutions, which must be accompanied by certificate from the Board of Public Charities, and approved by the governor. So the Board have all the vouchers from the various institutions to examine, and if found correct to approve, before the money can be drawn from the treasury. He felt warranted in saying that the state has saved thousands of dollars in the last few years, through the efforts of the board in securing a more economical outlay of money in the current expenses of the state institutions.

Mr. F. B. Sanborn said that the worst evils that the Massachusetts Board of Charities had to contend with were in the management of the pauper insane, and in the extravagant outlay of money upon buildings for their reception. "The deaths among the insane poor at Tewksbury have been reduced from fifty or sixty a year in 1874-5, to about twenty a year in 1877; in other words, the death-rate is not much more than a third part so large now as it was in 1875, when the board of charities exposed the abuses there. These abuses sprang from neglect and ignorance, more than from wanton disregard of duty, and they are now wholly at an end, if I may judge by the excellent condition in which Dr. Allen and I found the insane asylum at Tewksbury, at a visit which we made there within the last fortnight. Something has been done, too, by the board, to improve the general classification of the 2,500 insane persons who come under the care of the state, and this will appear when the costly new hospitals at Worcester and Danvers are once in full operation. That at Worcester will be opened in October; that at Danvers next winter or spring. In consequence of the discussion of this matter by the board of charities, more intelligent

views now prevail in Massachusetts in regard to buildings for the indigent insane. The costly edifices of recent erection have been justly condemned by public opinion, and there is now no danger that any further indulgence in this particular folly of building for the poor establishments only adapted to the wealthiest nobles of Europe, would be tolerated by the people or by the legislature of Massachusetts."

Additional reports were received from voluntary associations represented at the conference, including the State Charities Aid Association, of New York, the New York Prison Association, the Street Boys' Home, of St. Louis, St. Vincent's Home for Boys, of New York, the Boston Registration of Charities, and the School for Girls, at Middletown, Connecticut.

Upon the conclusion of these reports and addresses, the preliminary business of the conference was closed, and papers prepared by members of the standing committees and others were presented and discussed. We regret that space does not permit us to give more liberal extracts from these really valuable essays. The first was a report on insanity by Dr. J. B. Chapin, of the Willard Asylum, of New York, into which the results of years of observation were compressed. From this we learn that the average percentage of recoveries, based on 207,896 admissions into the asylums of Great Britain and this country, was thirty-four.

"The probabilities of one hundred cases, based upon the above number of admissions, may be stated to be as follows: Thirty-four per cent. will recover; twenty-nine per cent. will die; thirty-six per cent. remain not recovered at the end of the year. It may be stated further, that a certain proportion of the cases recovered will relapse, have second attacks, and eventually die insane.

"These statistics show results quite uniform, in the treatment of the insane, in different asylums, and under various systems, both in this country and in Great Britain. It also appears that, notwithstanding the advance of science, the percentage of recoveries during the last decade has not increased but is not quite equal to that reported during the first decade.

"Eighty-five per cent. of the insane appear to have had self-supporting occupations prior to the attack. Seventy per cent. become sooner or later a public charge. Before the attack of insanity these persons would not be classed as dependents, and belong chiefly to the middling classes. If we ascertain the disposition made of these cases, we will find that the greater proportion of the seventy per cent. are dependents as soon as the attack commences and must be provided for at once. These cases, in some of the

states, are declared paupers, and are promptly sent to an asylum. The insane of the middling classes who possess some property, but not enough to support them, do not as a rule receive early treatment, but are retained at home, from month to month, in the hope of improvement, eventually to become a life-long charge. Every locality has one or more of these sad cases, cases which might have been restored if the proper means had been at hand, but which become a public charge through neglect, and drag down whole families to destitution."

Dr. Chapin says further:

"The care of the insane involves a large expenditure of money, and the success of any general and comprehensive system will depend very much upon financial considerations. We observed in ascertaining the percentage of recoveries in different decades, that it has not been an increasing one and that if any change was perceptible, in comparing one period with another, it was a decreasing one. The average cost per capita to construct asylum accommodation has been steadily increasing. For the decade ending 1876, it was forty-two per cent. greater than the previous decade, which embraced the period of the war. The cost of the asylums now in course of construction, but yet unfinished, is not included in the above statement, and can only be estimated. It is sufficiently established that the per capita cost of construction of the asylums now being erected will exhibit, when completed, a largely increased percentage over that of any previous period.

"There have been no new demands of science — no change in the pecuniary condition of our people — no elevation of the requirements of the middling and dependent classes — to warrant an increased and increasing expenditure upon public buildings of this class."

A discussion of the subject of insanity followed the reading, after which Mr. F. B. Sanborn reported for the committee on statistics, upon the statistics of pauperism in the United States. Mr. Sanborn advocated the taking of a pauper census in the several states twice in each year, in order to ascertain accurately the number and condition of this class.

At the evening session, Mr. Theodore Roosevelt read a report on medical charities, in which he condemned the practice of indiscriminate gratuitous medical relief of persons who could easily earn the means of paying therefor. The following paragraph in Mr. Roosevelt's report is corroborative of Dr. Chapin's position on the subject of expensive hospital buildings, though it is probably too sweeping in its assumptions:

"The principle obstacle in the way of the establishment or multiplication of Hospital Homes and Insane Asylums, the want of which is generally ac-

knowledge, is the practice of expending immense sums of money upon the erection of buildings of this character. Such expenditure is not only wasteful, but criminal and unjust. It is criminal, because all experience teaches that buildings of much cheaper and more temporary character are much better fitted for the object in view. It is unjust, because, while intended for those who have been brought to their present condition, in most cases, by their own vices or inefficiency, they are supported by taxation upon the mass of the people, large numbers of whom have had no better chances, and have, perhaps, undergone still severer trial than the drones, who are the inmates of such institutions; yet have maintained their independence, and have never appealed to charity for aid. These should not be compelled to diminish their own scanty earnings, in order to provide splendid homes and luxurious living for the vicious and the improvident; but the burden upon them should be made as light as possible, by limiting the expenditure for the objects to the strictly necessary."

Mr. Charles Barnard, of New York, advocated, in his paper, the establishment of "provident dispensaries" for the former class, which are designed to assist such as cannot pay the regular medical fees, yet who are not paupers:

"From the poor man's point of view, the Provident Dispensary offers these advantages. It collects its fees in very small weekly sums, at his door, and it supplies the best medical advice instantly, on demand. The patient may choose his own physician out of the dispensary's staff. There is no delay, no restraint in asking for help, early, when it is most needed, and there is no humiliating sense of receiving charity. It is not charity, but business, a fair trade on both sides.

"For the charitable giver, the Provident Dispensary offers a channel where the expense of bestowing the charity is reduced to a small sum, or is extinguished altogether. When the dispensary is young, and its membership is limited, it may be a charitable institution of a most sensible and valuable kind. When it becomes self-supporting, it is no longer charity, but simply a co-operative medical society, and takes its place beside the savings bank and building association.

"For the medical man, the Provident Dispensary offers these advantages. It secures him a good and steady income; there are no debts to be collected, and no loss. His work is limited to a fixed number of patients, and he knows he will be called only when he can do the most good. As those in health continually assist to pay his salary, it becomes his right to control them, to prevent disease, and to insist on healthful living."

In the discussion following the reading of this paper, Mr. F. B. Sanborn said:

"Out-door relief, to be properly administered, requires a knowledge of the circumstances of the recipients. I will venture to say that there is absolutely

greater abuse practised in respect to indoor relief. The abuse of out-door relief takes place in the city, mainly; its best administration is in country places, where it is often administered with a great deal of discrimination, with a great deal of charity, and in many cases without pernicious effects; on the contrary, with most salutary effects in checking pauperism. Out-door relief, it is true, may increase pauperism, as has been asserted, but may also diminish it. When it is undertaken without reference to the individual character of the person receiving aid, it must fail of the best result, because the relations which charity establishes between the giver and the receiver are strictly personal. That is the reason why indoor relief is so much abused; it is difficult properly to meet individual circumstances. I would have the attention of the community directed to the proper use of out-door relief, and to the methods of improving it. I don't think the youngest of us will live to see it abolished. Out-door relief is actually increasing in every country in the world, except possibly in England."

Mr. Wm. P. Letchworth's report on dependent and delinquent children was received at the beginning of Thursday morning's session. He said that previous to 1807 no incorporated orphan asylum existed in the state of New York. In that year the Orphan Asylum Society was organized, and since 1817 the work of providing for destitute children has attained large proportions under the auspices of religious and other societies, assisted by the state.

A special report made by the State Board of Charities for 1875 showed that the number of children in the institutions referred to, exclusive of those in industrial schools, day homes, and lodging houses, was 17,791; of these, 9,404 were boys and 8,387 were girls. The proportion of orphans was 3,889, and of half-orphans, 7,610. There were 3,110 about whom it could not be ascertained whether their parents were living or not.

The total amount expended on behalf of these children for that year, as nearly as it could be ascertained, was, in round numbers, \$2,689,500. It is creditable to be able to state, and the knowledge must give satisfaction to every benevolent heart, that this large sum was in a considerable part derived from sources of private benevolence.

In the ensuing debate upon the general subject of the pauper, Mr. Tilton, of Wisconsin, said he was growing quite serious over this matter, and not only serious, but, he might say, almost burdened. The paper of Mr. Letchworth was interesting in its historical and suggestive character, but the hard fact remained, that as communities grew older, the appropriations for the criminal and

unfortunate classes also increased. Advancing east, it was found that prisons were multiplying, insane asylums were multiplying, and paupers and all the criminal and unfortunate classes were constantly increasing. What was the logic of all this? What would be the condition of American society two hundred years hence, if all this kept going on in the same ratio? What the outlay in this direction would be, when the population of America had reached two hundred and fifty millions, was to him appalling. Is it true that there is a general defect in our methods of preventing crime and misfortune, or that we have not yet reached the bottom of this question? He thought we had a right to demand of the older communities that, with their growing wealth and intelligence, they should grapple with this problem, and show us how to lessen the evil, instead of allowing it to increase. If they could not do this, then he considered we had a right to demand of them a confession that their methods are defective, or that they have not yet reached a solution of the problem. He wanted to know if our civilization was prepared to take heed of the evil lying back of all this. Was our civilization of such a character as to be bold enough to interfere with the marriage laws of the country? What right had a diseased man or woman to be permitted to marry? What right had society to allow this class to increase and burden the tax-payers with their support? This question of heredity was too delicate a subject to discuss, and yet it must be grappled with in order to conquer these evils. It was a slow work, but he thought we never should advance very much in the civilization of the world till we settled this question. It was a legitimate subject for such an organization as this to consider. Public attention should be called to it. He was very glad when he got hold of the pamphlet on the "Juke" family. He thought it ought to be in every family in the land. Instead of making the marriage laws of the country more liberal, they ought to be very much abridged.

Mr. Dugdale's paper on Hereditary Pauperism, as exemplified in the "Juke" family, was a very important study in the direction indicated by its title, but needs to be read from beginning to end for proper understanding.

At the afternoon session resolutions approving the objects of the International Prison Congress to be held at Stockholm in August, 1878, were adopted, with a recommendation that delegates be sent to the congress from each of the states.

The conference then considered the place of meeting in 1878, and several members took part in the discussion. It was proposed to hold the sessions of the conference next year apart from those of the American Social Science Association, and the preponderance of opinion seemed to be in favor of meeting in some city of the west or northwest. Finally, it was voted that the secretaries of the conference (Dr. Hoyt and Mr. Lord) should call the next meeting, after consultation with the secretary of the Social Science Association as to the time and place, but for a preference for Chicago as the place, unless it should seem to be manifestly more expedient to meet in some other western city.

The question of tramps was afterwards taken up and illustrated by papers from Edward E. Hale, of Boston, Prof. Wayland, of Yale college, and C. L. Brace, of New York. These were followed by a discussion which continued through the session.

The last report read at the conference was from the committee on public buildings for the dependent classes, of which Dr. M. B. Anderson was the chairman. Dr. Anderson, being seriously ill, had called upon Dr. Wilbur, of Syracuse, to write and present the report, which is worthy of attention throughout, from which we have room for only the following extract:

"We may now approach the practical question that lies before us.

"First, then, for a limited number of the insane, we need buildings where in dangerous lunatics — dangerous to themselves or others, whether from continuous or periodical conditions of maniacal excitement — may be positively restrained, to the necessary degree, and for the period when such excitement exists or is apprehended. When I say restraint, I not necessarily mean strict confinement, — high walls, grated windows, or other prison-like surroundings, or, in short, mechanical appliances of any kind. These may be needed. But it is ever to borne in mind that it is not indispensable that this restraint shall be always and only physical. The ends are security and safety and restoration, and where both physical and moral means are employed to meet these, the more the moral predominate, the better for all interested.

"I do not propose under this, or any other head, to go into details in regard to the sanitary or other features of such buildings. I take it for granted that all the specific needs of the several classes will be fairly considered in planning the structures built to meet those needs. That is to say, it may be assumed that the general policy of management held by those who control the erection of such buildings will determine their plan and character. There follows another general consideration, not out of place here, and one that has already been suggested, that the buildings provided or occupied for such a

purpose will necessarily, to some extent, modify the policy of management of those who occupy them. It is therefore the part of wisdom, while such policy is still undetermined, or the detail of methods at all in doubt, not to build too expensive or durable structures. In many of the British asylums, and in some of our own, there has been the necessity of costly alterations from time to time, not from the natural wear and decay, but from changes in the methods of management.

"But to return to the description of buildings: another need is an infirmary building, or at least wards resembling those of an ordinary hospital, where a certain class of patients may receive medical treatment. The statistics of our insane asylums show that but comparatively few of the inmates are sick and needing active medical treatment. For the majority of the patients, the function of the medical officer, even, is to look after their general health; meet by appropriate remedies the indications of organic disease or functional disturbance, in whatever organs may have been the prime cause or seat of the mental disease; direct in all matters of diet and regimen; and finally, prescribe the amount and kind of occupation or amusement. There is further need of a building or groups of buildings, where harmless or demented cases may receive the care and oversight that the peculiar condition of each requires. Also, a separate building or buildings for convalescent patients, within or without the grounds of an asylum, is very desirable, where those who have passed the active stage of their disease may pass a sort of probationary period, that occurs between insanity and complete restoration. To these, in some British asylums, is now added a seaside resort, where convalescents may go, or even patients still uncured, as a change from the monotony of ordinary asylum life.

"I have left for the last the mention of the workshops, the indispensable accompaniment of every asylum. These, commodious and cheerful, but inexpensive, should be of convenient access from all the other buildings, except, perhaps, the infirmary. The laundry and sewing-rooms should be equally accessible from the female wards. This affords opportunity for a definite amount of work in definite periods of each day, which leaves on the patients' minds the impression that they are accomplishing something. It is a very different thing from desultory and dawdling work, or pretense of work, done in the wards.

"In the American asylum of the future, occupation will certainly be a prominent feature of the moral treatment; for European experience, of the last twenty years, will not be lost upon us. The degree of occupation of the patients, and the consequent absence of excitement, is regarded by the British Board of Lunacy as one of the best tests of the excellence of management in the several institutions under their supervision. The superintendents of their asylums accept this, and vie with each other in their efforts to show the greatest percentage of patients employed; not for the economic results, but for its tranquilizing and curative effects."

With the details which followed this report the last session of the conference was closed at 10 o'clock P. M. of September 6.

The Wisconsin delegation was strongly urged to visit Rhode Island and observe the manner of caring for the chronic insane in that state, but were unable to do so, owing to the serious illness of Mr. Tilton. The latter afterwards visited the Willard Asylum for chronics, however, and spent the day there, but a still more serious and protracted illness, since his return, has prevented his making a special report.

For the committee,

A. E. ELMORE.

MILWAUKEE VISITING COMMITTEE.

We cannot more properly conclude this report than by an acknowledgment of the valuable work performed by our coadjutors, the local visiting committee of the Milwaukee Public Charities and Corrections, a voluntary organization of ladies whose strict watchfulness over the conduct of the public charities and corrections in the county of Milwaukee has perhaps been more effective than any other single influence. The following extract from the last annual report of the secretary of the society we fully endorse:

"When we first undertook this work there were abuses to be reformed — children to work for — now it is different. Our poor-house is properly managed — our insane are humanely treated — and the children, thank God, have been placed in an industrial school, founded by the exertions of this society. There is not now so much to appeal to the sympathies of the benevolent.

"But, although we have not the abuses to reform and the children to care for, we must not relax our vigilance. We must continue our organization. The moral influence of the society is great. We awakened the attention of the tax-payers to the state of the county institutions, a healthy public interest has been excited, and that interest must be kept alive for the benefit of the inmates of those institutions both charitable and reformatory."

The officers of the society are: president, Mrs. Wm. Pitt Lynde; vice-presidents, Mrs. J. H. Van Dyke and Mrs. J. I. Fairbanks; secretary, Mrs. Galbraith Miller; treasurer, Mrs. J. A. Magie.

OMISSIONS.

Through some accident, the poor-houses of Appleton and of Rock county were omitted from the table on page 142, though appearing in their proper places in the record of visitations, and the counties of Marathon and Marquette, though appearing in the tabular statement of jail visitations on page 105, are omitted from the record in the text. In the record of the visit to the Dodge county poor-house, in the third line from the last the figure 2 is omitted before the word, "men."

ALPHABETICAL INDEX.

ADAMS COUNTY, relating to jail matters, 104, 108, 144; poor-house, 142, 143, 144.

APPLETON, city poor-house, 143, 144, 161, 200.

APPROPRIATIONS, recommended for state institutions, 51, 52, 58; previous to 1878, aggregates, 48; previous to 1878, blind institution 57, deaf and dumb 68, state hospital 70, northern hospital 71, industrial school for boys 85, state prison 90.

ASHLAND COUNTY, jail, 104, 106, 107, 108; paupers, 145.

ASYLUM, see orphan asylum; chronic insane.

BARRON COUNTY, 108, 145.

BAYFIELD COUNTY, jail, 104, 106, 107, 108; paupers, 145.

BOARD OF CHARITIES AND REFORM, members and officers of, 2; meetings of, 5.

BOARDS OF CHARITIES in other states, 186.

BOYS, in jail, 102, 125, 140.

BROWN COUNTY, jail, 104, 106, 107, 108; poor-house, 142, 143, 144, 146.

BUFFALO COUNTY, jail, 104, 106, 107, 109; paupers, 146.

BUILDINGS, for the insane, 191, 197.

BURNETT COUNTY, jail, 104, 106, 107, 109; paupers, 146.

BY-LAWS, of state board, 180.

CADLE HOME, Green Bay, 170.

COLUMBIA COUNTY, jail, 104, 106, 107, 109; paupers, 146.

CATHOLIC ASSOCIATION, St. Nazian's, 171.

CHILDREN, delinquent and dependent, 195.

CHIPPEWA COUNTY, jail, 104, 106, 107, 110; poor-house, 142, 143, 144, 147.

CHRONIC INSANE, provision for recommended, 18; comparative cost of provision for, 19; homes for, needed instead of hospitals, 46; note correcting statement in relation to, 185; of Massachusetts, 191; of Rhode Island, 190.

CLARK COUNTY, jail, 104, 106, 111; paupers, 147.

COLUMBIA COUNTY, jail, 104, 112; poor-house, 142, 143, 144, 147.

CONFERENCE OF CHARITIES, at Saratoga, report of, 185.

COUNTIES, visitation of jails of, 108; visitation of poor-houses of, 144; residence of insane patients in, 75; residence of deaf and dumb pupils in, 67; residence of imbeciles and other defectives in, 87; from which convicts in state prison were received, 94; from which boys were received in the State Industrial School, 86.

CRAWFORD COUNTY, jail, 104, 106, 107, 111; Prairie du Chien poor-house, 142, 143, 144, 149.

DANE COUNTY, jail, 104, 106, 107, 112; poor-house, 142, 143, 144, 150.

DISPENSARIES, for the poor, 194.

DODGE COUNTY, jail, 104, 118; poor-house, 142, 143, 144, 152.

DOOR COUNTY, jail, 104, 106, 107, 113; paupers, 152.

DOUGLASS COUNTY, jail, 104, 114; paupers, 152.

DUNN COUNTY, jail, 104, 114; paupers, 142, 152.

EAU CLAIRE COUNTY, jail, 104, 106, 107; paupers, 142, 143, 144, 153.

EXPENDITURES, of the various institutions, see notices of institutions in question; of Illinois institutions, submitted to state board of charities, 191.

EXPENSES, of State Board of Charities and Reform, 184; of state institutions during 1877, 55.

FOND DU LAC COUNTY, jail, 104, 116; poor-house, 153.

FUNDS of state institutions should remain in state treasury until needed, 49.

GRANT COUNTY, jail, 105, 106, 107, 117; poor-house, 142, 143, 154.

GREEN COUNTY, jail, 101, 105, 106, 107, 118; poor-house, 154.

GREEN LAKE COUNTY, jail matters, 105, 118; paupers, 154.

HOME, soldiers' orphans', 100; for the friendless, Fond du Lac, 178; of the friendless, Milwaukee, 171; for chronic insane needed, 46.

HOSPITALS, for the insane, 68; St. Luke's, Racine, 178; Milwaukee county, 160; St. Mary's, Milwaukee, 180.

HOUSE OF CORRECTION, Milwaukee, 126.

IMBECILES, proposed institution for, 81; tabular statement of number reported, 87.

INDUSTRIAL SCHOOL, for girls, proposed, 20; for boys, 84.

INSANE in Michigan, 190. See Chronic Insane; Hospitals.

INSTITUTIONS, state, 46; county, 100; buildings for insane, 191, 197.

INSPECTION, alphabetical record of, 108; poor-houses, 144.

INTERNATIONAL Prison Congress, 44, 196.

IOWA COUNTY, jail, 105, 106, 107, 118; poor-house, 145, 155.

JAILS, general remarks concerning, 100; tables showing statistics of, 104; visitations of, arranged alphabetically, 108.

JACKSON COUNTY, jail, 105, 106, 107, 119; paupers, 142, 156.

JEFFERSON COUNTY, jail, 103, 105, 106, 107, 120; poor-house, 142, 143, 144, 156.

JUNEAU COUNTY, jail, 105, 106, 107, 120; paupers, 156.

KENOSHA COUNTY, jail, 105, 121; poor-house, 142, 143, 144, 157.

KEWAUNEE COUNTY, jail, 105, 122; paupers, 157.

LA FAYETTE COUNTY, jail, 105, 106, 107, 123; poor-house, 142, 143, 144, 158.

LEGISLATION, recommendations for, 12.

LINCOLN COUNTY, jail, 105, 106, 107, 124; paupers, 159.

MANITOWOC COUNTY, jail, 105, 106, 107, 124; paupers, 159.

MARATHON COUNTY, jail, 105, 106, 107 (notes of visit to this jail omitted from list by some accident); poor-house, 159.

MARQUETTE COUNTY, jail matters, 105; paupers, 159.

MARYLAND, institutions of, 9, 190.

MEETINGS, of State Board, 5; of conference of charities, 185; of State Board with local boards, 7; of conference of charities in 1878, 197.

MILWAUKEE, county jail, 105, 125; house of correction, 126; police station, 126; orphan asylum, 177; home for the friendless, 171; industrial school, 174; county poor-house, 159; local visiting committee, 199.

MONROE COUNTY, jail, 105, 106, 107, 129; Sparta lock-up, 130; county poor-house, 142, 160.

NATIVITY, of insane persons, 76; of convicts in state prison, 98; of boys at industrial school, 86; of prisoners in jails, 107; of inmates of poor-houses, 144.

OCONTO COUNTY, jail, 105, 106, 107, 130; paupers, 161.

OMISSIONS, 200.

ORPHAN ASYLUM, St. Rose and St. Joseph's, 179; St. Æmilianus, 178; Taylor, 180; Milwaukee, 177.

OUTDOOR RELIEF for the poor, 194.

OUTAGAMIE COUNTY, jail, 105, 106, 107, 131; paupers, see Appleton.

OZAUKEE COUNTY, jail, 105, 106, 107, 131; poor-houses, 142, 143, 144, 161.

PAUPERISM, F. B. Sanborn's report on, 193; H. C. Tilton's remarks on, 193.

PEPIN COUNTY, jail, 105, 106, 132; paupers, 161.

PIERCE COUNTY, jail, 105, 106, 107, 132; poor-house, 142, 143, 144, 161.

POLK COUNTY, jail, 105, 106, 107, 133; poor-house, 142, 162.

PORTAGE COUNTY, jail, 104, 105, 106, 133; paupers, 162.

PRAIRIE DU CHIEN, city poor-house, see Crawford county.

RACINE COUNTY, jail, 105, 106, 107, 134; poor-house, 142, 143, 144, 163.

REPORTS, of sheriffs, failures to make, 101; of overseers of poor-houses, failures to make, 142; of F. Brunckhorst, 123; of M. H. McCord, 124; of committee on imbeciles, 32; of conference of charities, 185; of Dr. Chapin on insanity, 192.

RICHLAND COUNTY, jail, 105, 106, 107, 135; paupers, 164.

ROCK COUNTY, jail, 105, 106, 107, 135; poor-house, 143, 144, 164.

ST. LUKE'S hospital; St. Æmilianus, St. Rose and St. Joseph's orphan asylums, 178, 179.

ST. CROIX COUNTY, jail, 105, 106, 107, 136; poor-house, 142, 143, 144, 164.

SAUK COUNTY, jail, 105, 106, 107, 136; poor-house, 142, 143, 144, 164.

SHAWANO COUNTY, jail, 106, 137; paupers, 165.

SHEBOYGAN COUNTY, jail, 105, 106, 107, 137; insane asylum, 142, 143, 144, 165.

STATE PRISON, 90.

STATISTICS, see tables.

STATISTICS, general, of insanity, 188; general, of Wisconsin charities, etc., 188.

TABLE, of number of imbecile children in counties, 87; of cost of state institutions from the beginning, 48; of household expenses in state institutions during 1877, 55; of appropriations asked for 1878, 56; of general statistics of Institution for the Blind, 57; of household supplies, 61; of statistics of Deaf and Dumb Institute, 63; of household supplies, 65; of cost of State Hospital for Insane, 70; of cost of Northern Hospital, 71; of general statistics of both hospitals, 72; of civil condition of patients, 73; of movement of population of hospitals, 78; of ages of patients admitted, 75; of number to which counties are entitled, and number from counties, in the hospitals, 75; of nativity of insane patients, 76; of subsistence and current expenses in State Hospital, 78; of the same in Northern Hospital, 82; of cost of State Industrial School from beginning, 85; of ages of boys in Industrial School, 86; of counties from which committed, 86; of nationality of parents of boys, 87; of cost per capita at the School, 87; of cost of State Prison from beginning, 90; of liabilities and assets of prison, 91; other statistics of prison, 92; showing length of sentences, 96; of receipts and disbursements of Soldiers' Orphans' Home, 100; of jail accommodations and population, 104; of jail statistics for 1877, 106, 107; of poor-house statistics for 1877, 142, 143, 144; of statistics of Milwaukee House of Correction, 128.

TAYLOR ORPHAN ASYLUM, 180.

TAYLOR COUNTY, jail, 105, 106, 107, 137; paupers, 166.

TRAMPS, 23.

TREMPEALEAU COUNTY, village lock-up at Trempealeau, 105, 138; county poor, 166.

VERNON COUNTY, jail, 105, 106, 107, 138; poor-house, 142, 143, 144, 166.

WALWORTH COUNTY, jail, 105, 106, 107, 139; poor-house, 143, 144, 167.

WASHINGTON COUNTY, jail, 105, 106, 107, 139; poor-house, 142, 143, 144, 167.

WAUKESHA COUNTY, jail, 105, 139; poor-house, 142, 143, 144.

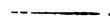
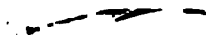
WAUPACA COUNTY, jail, 105, 106, 107, 140; poor-house, 142, 168.

WAUSHARA COUNTY, 105, 141, 168.

WINNEBAGO COUNTY, jail, 105, 106, 107, 140; poor-house, 142, 143, 144, 169.

WOOD COUNTY, jail, 105, 106, 107, 141; paupers, 170.

WORK FOR THE INSANE, 198.



FOURTH

ANNUAL REPORT

OF THE

RAILROAD COMMISSIONER

OF THE

STATE OF WISCONSIN.

1877.

MADISON, WIS.:
DAVID ATWOOD, PRINTER AND STEREOTYPED.
1878.

TABLE OF CONTENTS.

	Page.
Report proper, of Commissioner	3-19
Appendix, containing official correspondence.....	20-29
Railroad Laws.....	30-36
Full text reports of companies —	
Chicago, Milwaukee and St. Paul.....	41-60
Chicago and Northwestern.....	61-83
Chippewa Falls and Western	84-98
Galena and Southern Wisconsin	99-113
Green Bay and Minnesota	114-128
Milwaukee, Lake Shore and Western.. ..	129-144
Mineral Point.....	145-159
Madison and Portage.....	160-174
Pine River Valley and Stevens Point.....	175-189
Prairie du Chien and McGregor	190-202
Sheboygan and Fond du Lac	203-217
Western Union	218-233
West Wisconsin.. ..	234-243
Wisconsin Central.....	244-263
Wisconsin Valley	264-279

TABULATED STATISTICS.

Table No. 1, railroad lines, with locality, etc.....	280-283
Table No. 2, capital stock	284
Table No. 2, funded and unfunded debt.....	285
Table No. 3, cost of road	286
Table No. 3, interest and rentals	287
Table No. 4, train mileage.....	288
Table No. 5, transportation of passengers.....	289
Table No. 6, tonnage of freight.....	290
Table No. 7, total earnings	291-292
Table No. 8, tons carried	293
Table No. 8, tons carried one mile.....	294
Table No. 9, passenger train mileage.....	295

	Page.
Table No. 9, passenger and freight, and mixed train mileage	296
Table No. 10, number passengers carried.....	297
Table No. 10, number passengers carried one mile	298
Table No. 11, passenger earnings	299
Table No. 12, passengers carried one mile, and rate per mile.....	300
Table No. 13, passenger earnings on whole road, and per mile of road	301
Table No. 14, freight earnings	302
Table No. 15, operating and current expenses compared with earnings	303
Table No. 16, accidents	304

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

REPORT.

STATE OF WISCONSIN,
Office of Railroad Commissioner.
MADISON, January 15, 1878.

To His Excellency, WM. E. SMITH,
Governor of Wisconsin,

SIR:— I have the honor to submit herewith my second annual report, it being the fourth made from this department since the enactment of chapter 273 of the general laws of 1874, approved March 11, 1874, amended by chapter 57 of the general laws of 1876, approved February 24, 1876, covering the traffic and operations of the several lines of railway doing business within the state for the year ending September 30, 1877, with tabulated comparisons of their extent, capital stock, cost, funded and unfunded debt, increase or decrease in liabilities, dividends paid, number of passengers carried, earnings from passenger traffic, rate per passenger per mile, number of tons of freight carried, earnings from freight traffic, rate per ton per mile, cost of operation, improvements, general condition of roads and bridges, accidents to passengers and employes, with such other information and observations as may occur, with full copies of reports as made by the several companies, as required and prescribed by the commissioner, under the provisions of section 12, chapter 273, general laws of 1874.

REPORTS.

A marked improvement is noticeable in the reports for the past year, the result of extensive correspondence and personal interviews with the officers of the railway corporations, whose duty it is to compile the reports, the results being as satisfactory as could be expected, where no uniform system of keeping accounts is prescribed by law.

The reports from most of the companies have been forwarded in season; several, however, delaying their reports until a very late day, rendering it impossible to complete the tables showing the operations of the year in season to make report at the opening of the session of the legislature.

In September last I received from the commissioner of railroads and telegraphs for the state of Ohio, the following communication asking co-operation with the commissioners of the state of Pennsylvania and of the northwestern states, following the precedent of the commissioners of New York and the New England States, with a view to the adoption of an improved system of accounts for railroad corporations.

“STATE OF OHIO,

“*Office of Commissioner of Railroads and Telegraphs,*

“COLUMBUS, 20th September, 1877.

“HON. DANA C. LAMB, *Railroad Commissioner, Madison, Wis.:*

“SIR: The Ohio legislature at its last session, adopted a joint resolution by which the railroad commissioner was ‘instructed to confer with the authorities of other states, as far as practicable, with a view to the adoption of an improved system of accounts for railroad corporations.’

“The importance of this subject is fully recognized by all conversant with it, and the necessity for such authoritative and efficient action as shall secure definite results upon a uniform basis, apparent to those whose duty it is in the several states to compare and utilize the annual reports required by law of the railroad corporations.

“These facts have been so clearly demonstrated in the railroad

journals of the country, and in the annual reports made by the railroad commissioners of the several states, especially those of the Massachusetts board, that no occasion exists to do more here than advert to them.

"In furtherance of this object, your coöperation is invited, and believing that the mode adopted by the commissioners of the New England states, and of New York, to be the most practical (see 1876 report Massachusetts commissioners, and of Ohio for 1876, pg. 18) would recommend that a copy, duly signed, of the presentation enclosed herewith, be addressed to each of the several legislatures named.

I remain, very respectfully, yours, etc.,

L. G. DELANO,
Commissioner.

To the legislatures of Pennsylvania, Ohio, Michigan, Indiana, Illinois, Wisconsin, Minnesota, Iowa and Missouri:

The undersigned, secretary of internal affairs of Pennsylvania, and the railroad commissioners and other state officials of the north-western states, whose duty it is to collect and publish the annual returns required to be made by the railroad corporations of these states, respectfully submit for consideration by your honorable bodies;

That, as gathered from late returns, the railroad systems of the states represented by you, embrace 397 corporations, operating 32,551 miles of line, which yielded \$290,639,000.00, as the gross earnings for one year, and represent a paid in capital of \$1,403,154,863.00, with a bonded indebtedness of \$1,300,006,745.00;

That in view of the large interests involved and the intimate relations these corporations sustain to each other and the public, the lines operated by a single corporation often extending through and into several states, it is of the highest importance that their accounts should be kept upon some uniform prescribed system, subject to proper supervision by the state, in order that their returns shall be truthful, and not tend to mislead the public or stockholders, as now too often is the case.

Aware of the great need of a reform in this direction, the rail-

road commissioners of the New England states, and the state engineers of New York, have united in a memorial addressed to the legislatures of those states, setting forth reasons for asking state intervention; and the means they recommend to secure this end are as follows:

The accounts of these corporations are kept on no uniform system and under no public supervision; while the returns published by the different states neither resemble each other, nor can they be relied on as correctly representing the condition of the several companies' affairs.

Indeed, the returns now required in the several states differ so much that, in certain cases, corporations have to answer four different sets of questions from the same set of books.

There is certainly no one material interest in this country, an exact and correct knowledge of which is of such general importance, as the business of railroad transportation and the affairs of corporations concerned in it.

Under the loose system of making returns hitherto and now in use, it is impossible to obtain this knowledge; and we are fully convinced that it will continue to be so until the different states unite in requiring that all railroads make their returns at a given time and in a uniform manner.

As a result of careful deliberation and conference with representatives of leading railroads, a form of returns and rules, under which accounts in future are to be kept, have been agreed upon by us, a copy of which is hereto appended. If adopted in the several states, this form and the accompanying rules will compel the corporation to keep correct and detailed accounts, and to make uniform returns, at one fixed time, from them. From these the several states can cause the publication of such facts, be they more or less, as in each case may be thought sufficient, the original returns being, necessarily, matters of record only. The system under which the returns are made will be none the less uniform.

In Massachusetts, only, are the commissioners clothed with power to adopt and put in operation this system without further legislative action. For the reasons given, therefore, we unite in recommending to the legislatures of the other states above named, the early passage of such laws as will make practicable this reform. This can be done either through the direct incorporation of the system

recommended into law, in place of that now in use, or, better yet, in the manner pursued in Massachusetts, where the state officials have been clothed with discretionary powers in the premises.

(Signed)

L. G. DELANO,
Commissioner for Ohio.
JNO. E. NEFF,
Secretary of State of Indiana.
W. M. SMITH,
GEO. M. BOYNE,
JNO. H. OBERLY,
Commissioners for Illinois.
DANA C. LAMB,
Commissioner for Wisconsin.
W. R. MARSHALL,
Commissioner for Minnesota.
JOSIAH T. YOUNG,
Secretary of State of Iowa.

The commissioner further adds: "As admitted by the Massachusetts commissioners, the form of returns and rules for keeping accounts thus recommended, must be tested by experience, they do not expect them to be found perfect, but are confident that they will prove much better than anything hitherto in use, and besides, improvements found desirable can be made at intervals of a year. I submit the matter for the consideration of the legislature."

RAILROAD CORPORATIONS.

There are reporting to this office fifteen railway corporations, namely:

Chicago, Milwaukee and St. Paul.
Chicago & Northwestern.
Chippewa Falls & Western.
Galena & Southern Wisconsin.
Green Bay & Minnesota.
Milwaukee Lake Shore & Western.
Mineral Point.

Madison & Portage.
 Pine River & Stevens Point.
 Prairie du Chien & McGregor.
 Sheboygan & Fond du Lac.
 Western Union.
 West Wisconsin.
 Wisconsin Valley.

The Fond du Lac, Amboy & Peoria Narrow Gauge Railway has been completed from Fond du Lac to Iron Ridge Junction, a distance of thirty miles—connecting at the latter point with the Chicago, Milwaukee and St. Paul railroad.

The fifteen railroad corporations above named own and operate a total of 4,985 26-100 miles of road, 2,659 06-100 miles of which are within the state of Wisconsin.

The total increase of lines during the year is 70 70-100 miles, against 141 miles in 1876, and is made by the following companies:

Wisconsin Central.....	48.50
Milwaukee Lake Shore & Western.....	21.00
Wisconsin Valley.....	1.20

To this add the Fond du Lac, Amboy & Peoria Narrow Gauge from Fond du Lac to Iron Ridge, 30 miles, and we have a total of 100 70-100 miles of new road built within the year.

A discrepancy will be observed in the total number of miles operated as compared with 1876, for the reason that some of the companies report side tracks as part of "tracks operated, computed as single tracks." The completion of the Wisconsin Central road to Lake Superior opens up a vast country for the lumberman, the miner, and the settler, hitherto undeveloped.

I am informed that the preliminary survey has been made from Ashland to Superior City, and that at an early day a road will be constructed connecting this road with the Northern Pacific, making the Wisconsin Central the great thoroughfare between the state of Wisconsin and the Pacific coast.

CAPITAL STOCK.

The total amount of capital invested in railroads doing business in the state, as reported, is \$26,648,024.53, a decrease of \$4,764,-

124.43, the West Wisconsin road not included, it being in the hands of a receiver and not representing capital stock.

This road reported, in 1876, a capital stock of \$5,000,000. Assuming that its capital is still unimpaired there would be an actual increase of \$224,975.57.

The proportion of stock for Wisconsin, based upon mileage, is \$52,054,994.21, an increase of \$1,476,652.29. The average amount of stock per mile of road in and out of the state, is \$20,048.68, a decrease per mile of \$1,414.35.

FUNDED AND UNFUNDED DEBT.

The total debt funded and unfunded is reported at \$77,582,805.81, an increase of \$1,416,321.72.

The proportion for Wisconsin being \$55,306,901.77, an increase of \$54,728,559.76. The total debt per mile, of roads reporting that item, is \$20,045.26, a decrease of \$868.57 per mile.

The West Wisconsin road was, on the 1st day of June, 1877, placed in the hands of W. H. Ferry, receiver of the U. S. Circuit Court for the Western District of Wisconsin.

The Wisconsin Central, at the date of the report, was operated by the Phillips & Colby Construction Company, they alone reporting, hence no reports of the amount of funded and unfunded debt of these roads can be given.

COST OF ROADS AND THEIR EQUIPMENT.

The cost of the roads and their equipment, of the companies reporting, aggregates the sum of \$182,074,391.14, an increase of \$4,344,186.97, deducting the cost of the West Wisconsin in 1876, which is not included in the report for 1877. The proportion of cost for Wisconsin is \$104,510,700.51.

The average cost per mile is \$40,254.51, a decrease per mile of \$1,475.50.

The highest cost per mile of road in Wisconsin is that of the Green Bay & Minnesota, given at \$50,330.52; the lowest of the standard gauge roads is the Chippewa Falls & Western, at \$17,474.68.

The Fond du Lac, Amboy & Peoria Railroad Company, narrow gauge, report (too late for use in making the estimates of total cost of roads within the state) the total cost of their road from Fond du

Lac to Iron Ridge Junction, thirty miles, at \$130,206.74, or \$4,340 per mile, including equipment.

The road is now in the hands of the U. S. marshal; this, however, not interfering with the regular running of trains.

GROSS EARNINGS.

The gross earnings of the several roads for the year ending September 30, 1877, were \$22,870,427.56, a decrease of \$1,532,298.63; the proportion of earnings for Wisconsin being \$10,165,765.38, a decrease of \$884,451.41. The earnings from passengers on the whole line were \$5,577,663.10, the proportion for Wisconsin being \$2,447,526.08, a decrease of \$203,097.40.

The earnings from freights on the whole line were \$16,130,946.02. The proportion for Wisconsin is \$7,188,790.56, a decrease of \$654,380.58.

The earnings from mails, express and other sources were \$1,151,818.39; the proportion for Wisconsin is \$529,448.09, a decrease of \$25,905.97.

The average earnings per mile of road were \$5,054.17 on the whole line; proportion for Wisconsin, \$3,915.28.

INTEREST AND RENTAL.

Seven companies only report their liabilities for interest and rental, showing an aggregate liability of \$5,045,752.42.

The same companies reported in 1876 a liability of \$5,967,320.01; a decrease of \$921,567.61.

The increase has been made by the following named companies, to wit:

Chicago, Milwaukee & St. Paul	\$56,379 77
Green Bay & Minnesota..	104,290 59
Milwaukee, Lake Shore & Western	22,906 52

The companies decreasing their liability are the

Chicago & Northwestern	\$1,105,876 07
Chippewa Falls & Western.....	1,163 00
Western Union.....	105 00
Wisconsin Central	167,404,87

DIVIDENDS.

Two companies only report dividends paid:

The Chicago, Milwaukee & St. Paul Company report a dividend of $3\frac{1}{2}$ per cent. paid on preferred stock in cash, amounting to \$429,606.90.

The Chicago & Northwestern Company report a dividend of $2\frac{1}{2}$ per cent. on preferred stock, amounting to \$536,810.00.

TRAIN MILEAGE.

The total number of miles run by passenger trains during the year was 4,805,900, an increase of 67,583.

The total number of miles run by freight trains was 11,415,199; an increase of 85,104.

The total train mileage of all trains was 16,221,099; an increase of 152,687.

PASSENGERS CARRIED.

The total number of passengers carried by all the roads is 4,764,234, a decrease of 483,952.

The proportion for Wisconsin being 2,088,233.

The total number of passengers carried one mile by all the roads was 184,487,683, showing a decrease of 13,959,923. Proportion for Wisconsin, 73,262,619.

EARNINGS FROM PASSENGERS.

The earnings from passengers over the whole lines were \$5,577,-663.10, a decrease of \$463,734.45.

The earnings from passengers in Wisconsin was \$2,447,526.08, a decrease of \$203,097.49.

The earnings from passengers per mile of road in Wisconsin was \$889.13, a decrease of \$52.08 per mile.

Twelve companies only report passengers carried one mile.

The rate per passenger per mile upon these roads, on the whole line is, .0302, and in Wisconsin, .0333, a very slight increase over the rates in 1876.

FREIGHT.

The total tonnage of freight transported during the year on all

the roads was 6,055,518, showing a decrease of 1,933,297 tons, the proportion for Wisconsin being 2,821,900.

The total number of tons carried one mile, on all the roads, was 839,980,460, a decrease of 38,959,638.

To arrive at the proportion for Wisconsin is impossible, for the reason that some companies fail to report the estimate, and the neglect of any one company almost totally destroys the value of the report.

The average rate per ton per mile, for the year, on all the roads, was \$1.90-100, a decrease of .004-100. The average rate in Wisconsin being 1.96-100, a decrease of .0018.

OPERATING EXPENSES.

The total amount of operating expenses for the year was \$13,406,141.05, against \$15,176,825.71 in 1876, a decrease of \$1,770,684.66. The proportion for Wisconsin being \$6,893,843.24.

The operating expenses for each mile of road were \$2,963.94, in Wisconsin \$2,655.12.

STEEL RAILS.

The Chicago, Milwaukee & St. Paul Company report the laying of 4,614 tons, equal to 49 miles of steel rails, in place of iron, during the past year.

The receiver of the West Wisconsin reports 4,112 $\frac{2}{3}$ tons, equal to 46 $\frac{2}{3}$ miles laid.

The Milwaukee, Lake Shore & Western have laid 21 miles, between Appleton and New London, making a total of 110 34-100 miles, against 108 miles during the year previous. The Northwestern not reporting.

INSPECTION OF ROADS.

Section 2, chapter 57 of the laws of 1876, requires the commissioner to "inquire into any neglect or violation of the laws of this state, by any railroad corporation doing business therein, or by the officers, agents or employees thereof, and shall also, from time to time, carefully examine and inspect the condition of each railroad in the state, and of its equipment, and the manner of its conduct and management, with relation to the public safety and convenience."

In accordance with the requirements of the law, I commenced, in May last, a tour of inspection on the several roads, in most cases, accompanied by the chief engineers employed by the several companies, making a thorough inspection of the road bed, and especially the bridges upon the several lines.

CONDITION OF ROADS.

As a result, I find most of the railroads in the state, notwithstanding the general falling off in both passenger and freight traffic, in excellent condition, the great trunk roads in the state, i. e., the C., M. & St. Paul and Chicago & Northwestern, taking rank, in point of condition and equipment, with the best roads in the country.

The Wisconsin Central, completed during the past year to Lake Superior, is not yet fully ballasted, but is in good condition for the amount of transportation required. The Milwaukee, Lake Shore & Western, Western Union, Chippewa Falls & Western and Wisconsin Valley roads are well conducted and in good condition.

The Sheboygan & Fond du Lac road contracted, during the winter of 1877, for a large number of ties, but owing to the low stage of water on the upper Wolf river, were unable to get them in time for replacement the past season. On the opening of spring, however, a large amount of new ties will be laid and the road put in good repair.

On the 19th day of June last, accompanied by the secretary of the commission and the bridge superintendent of the line, I made a tour of inspection on the line of the West Wisconsin Railway by special train, stopping at and carefully inspecting each bridge on the line.

As the best explanation of the results of this inspection, I append hereto the correspondence between this commission and Mr. W. H. Ferry, receiver of the said road, together with the order of the U. S. Court, authorizing him as receiver, to use the sum of \$200,000 in "rebuilding the bridge at Black River Falls and in putting down steel rails in place of iron rails which have become worn out," and for other expenses, as he may have been or may be required to pay by order of the court. See Appendix.

BRIDGES.

On the 20th day of December, 1876, came the startling news that a passenger train, containing 150 persons, had gone down with the iron bridge over Ashtabula creek, near Ashtabula, Ohio, the wreck taking fire, and that nearly half the number were either killed, burned, or drowned in the stream before relief could be had.

The traveling public in the state of Wisconsin shared in the general distrust of railroad bridges. Numerous letters were received at this office, inquiring as to the safety of certain bridges, and especially the high, wooden structures on the line of the West Wisconsin Railway.

In view of this fact I issued to each company the following circular letter :

STATE OF WISCONSIN,
Office of Railroad Commissioner,
MADISON, —, 1877.

— —, *General Manager, — Railway:*

SIR:—Since the disaster at Ashtabula the public are extremely distrustful as to the safety of railroad bridges, and especially at this season of the year.

In view of this fact, and believing it to be for the interest of the railroad companies themselves, to assure the traveling public of the entire safety of their lines, I would suggest that you cause an immediate inspection, by competent engineers, of all bridges on your lines, and report to this office.

Very respectfully,

DANA C. LAMB,
Railroad Commissioner.

Most of the companies mailed prompt responses to the circular. (See appendix.)

Doubts having been expressed as to the safety of the Merrimac bridge on the Madison division of the Chicago & Northwestern road, on the 6th day of July I called the attention of the general manager of that road receiving a prompt reply. (See appendix.)

The C., M. & St. Paul Company have nearly completed a fine

iron bridge over the Wisconsin river at Kilbourn City. The bridge is constructed entirely of wrought iron, and consists of the following spans:

One span of 243 feet, and two spans of seventy feet each.

It is a deck bridge, having railway track at upper chord height, and passage for highway underneath.

The whole structure has been constructed under the most rigid inspection, and in accordance with well matured specifications.

The total cost when completed, will be, approximately, \$45,000.

The C. & N. W. Company have rebuilt their bridge at Racine, and have made extensive improvements at Kenosha, and are now preparing to replace the wooden bridge at Oshkosh with a fine iron structure.

As the result of my labors, I take pleasure in stating my belief that the railroad bridges in Wisconsin are in better condition by far than ever before.

ACCIDENTS.

The whole number of accidents occurring during the past year within the state is as follows:

Passengers killed	2
Passengers injured.....	6
Employees killed	12
Employees injured.....	56
Other persons killed	20
Other persons injured.....	21
Total number of persons killed.....	34
Total number of persons injured.....	83
Total number of accidents to persons.....	<u>117</u>

A decrease of more than one-half. Of the passengers killed, one was from causes beyond his own control and one by jumping off the train into the river. Of the employees and other persons killed or injured nearly all are reported "by their own misconduct and want of caution."

In conclusion of this subject permit me to quote the language of the commissioner for the state of Michigan, in his report for 1876:

"The great destruction of life and the injuries inflicted upon

many that escaped death as well as the immense drain upon the resources of the largest corporations of the country by the falling of railroad bridges within the last ten months should be a fearful warning to the railroad companies of this state, and impel them to greater diligence in the prevention of like disasters."

COMMISSIONER'S ANNUAL REPORT.

As I stated in my last annual report "The duty of making a report to either the executive or the legislature is not imposed on me by law."

The information contained in such a report, carefully compiled, cannot fail to be of benefit to the people of the state. I would recommend that the law be so amended as to require the commissioner to make report to the legislature at the opening of its annual session.

By section 12, chapter 273, of the general laws of 1874, and which is still in force, the commissioner is required to make to the state treasurer during the month of January, a return showing the actual cost of each railroad up to and including the 31st day of the next preceding December, and a variety of important information embracing the same time. Section 3 of chapter 57 of the laws of 1876, provides that, to enable the commissioner to make the return required by section 12 of chapter 273, above referred to, the proper officer of each railroad company shall make such return in the month of October as will afford the information for the returns required by the aforesaid section 12.

It is manifest that the returns to be made in October cannot furnish the necessary information up to the 31st of the following December. There is no other source for the information required of the commissioner.

This discrepancy in the law should be supplied, and I recommend that the statute shall be so amended that the returns to the state treasurer should embrace the information obtained in the month of October by the reports of the companies.

This can be best done by striking out the words 31st day of December, whenever they occur in said section, and substituting the words 30th day of September in their place; and by striking out the word January and inserting the word November.

This will obviate the necessity of the companies making two separate reports, and enable the commissioner to complete his report in season to be of use to the legislature. This recommendation was made in my last report, but too late for action by that body.

SUPERVISION OF RAILROADS BY THE STATE.

The right of the state to exercise a control over railroad corporations has been established by the supreme court of the United States. The necessity of some official, clothed with power to enforce the law is no longer a matter of doubt.

The states of Maine, New Hampshire, Massachusetts, Vermont, Connecticut, New Jersey, Michigan, Ohio, Illinois, Missouri, Minnesota and California have established commissions, with powers similar to that of this state, or have extended the powers of such an officer to other state officials.

The commissioner of railroads and telegraphs for the state of Ohio, in his annual report for 1876, justly says:

“The more public attention has been intelligently directed to this subject, the more apparent is the wisdom and necessity of exercising state supervision over railway corporations and lines, and the more has public opinion sought to influence and promote such legislation and secure the appointment by the state, of officers clothed with sufficient authority to protect citizens in case of attempted usurpation, and to aid in redressing violations of the laws controlling and regulating these important interests.”

“There can be no doubt that such an officer exercising, with discretion, the necessary authority, hearing and inquiring into all well grounded causes of complaint of mismanagement, unjust discriminations or other violations of law, and having, at his disposal, efficient means for prompt enforcement of all its provisions, can do service valuable to the state, the business and traveling community, and to the corporations, as it is evident that the true interests of the public are inseparable from those of railroads, and that if conditions exist, either prosperous or adverse to the one the other will inevitably be affected in a similar manner. But to secure the greatest benefit the office must be properly sustained by and have the hearty co-operation of the state.”

On this subject the governor of Iowa, in his recent annual message, uses the following language:

"The right of the law-making power to regulate railroad tariffs has been sustained by the highest judicial tribunal of the land, and sustained, too, not merely because of the ample reservations made in the land-grant and other acts of our legislatures, but on broader principles, such, indeed, as are essential to well-ordered governments; and I cannot but think that corporate rights are more securely guarded to-day, by reason of this decision, than if the determination of the disputed question had been otherwise. That this control shall be judiciously exercised, so that, while preventing extortion on the one hand, it shall not discourage enterprise on the other, is the dictate of wisdom. The creation of the office of railroad commissioner, with powers and duties similar to those exercised by like officials in other states, to be filled by some competent person, skilled in the knowledge needed in such position, I believe advisable, and recommend that the governor be authorized, with the consent of the senate, or executive council, to make such appointments."

APPENDIX.

The replies of several of the managers of the roads to my circular letter calling their attention to the condition of bridges; the correspondence with the receiver of the West Wisconsin road; the order of court directing that the recommendations of the commissioner be carried out, with the full report to this office, by the receiver, of the improvements made on said line during the past season; the law of 1876, amendatory to that of 1874, and now in force, together with the full text of the reports from the several companies, will be found in the appendix hereto.

EXPENSES.

The total expenses of the commission, for the year ending September 30, 1877, were:

For salary and expenses.....	\$3,167 00
Secretary's salary	1,100 00
Extra clerical labor	158 00
Printing and binding report.....	876 12
Printing blanks for reports from companies.....	186 66
Printing circulars.....	2 10
Postage.....	60 60
Stationery from superintendent of public property	47 97
Total	<u>\$5,594 45</u>

The period covered by this report embraces a full year under the operation of the existing law, most of the previous reports covering parts of years, under different laws, from which no just conclusions could be drawn.

The necessity of an officer whose duty it is to act as a mediator between the people and the corporations, is manifest, for many reasons:

1st. That complaints, under the existing law, have been infrequent, and in most cases unimportant, but few at this date remaining unadjusted.

2d. Connections at all important points have been established and are maintained.

3d. The general condition of the roads with relation to the "public safety and convenience," is greatly improved, the courts recognizing the authority of such an officer to demand of corporations such improvements as shall insure the traveling public against disaster and death.

4th. The apparent establishment of an era of harmony and good will between the companies who transport and the people who produce the commodities which form the commerce of our state.

Permit me, in conclusion, to express my obligations to the officers and managers of the several railway corporations with whom I have been thrown in contact, for the uniform courtesies extended during my term of office.

DANA C. LAMB,
Railroad Commissioner.

APPENDIX.

CORRESPONDENCE IN ANSWER TO BRIDGE CIRCULAR.

CHICAGO, MILWAUKEE & ST. PAUL RAILWAY CO.,
General Manager's Office,
MILWAUKEE, May 1, 1877.

HON. DANA C. LAMB, *Railroad Commissioner:*

DEAR SIR: I duly received your circular letter of the 10th ult

We are having all bridges on our lines carefully examined by our engineers, aided by competent bridge men, with a view of taking measures to insure, beyond a question, the absolute safety of the traveling public.

Respectfully yours,

S. S. MERRILL,
General Manager.

WISCONSIN CENTRAL RAILROAD,
Office of General Manager,
MILWAUKEE, April 17, 1877.

HON. DANA C. LAMB, *Railroad Commissioner:*

DEAR SIR: On my return from Lake Superior I find your circular letter of the 12th.

In reply I will state that during the last three months, and since the Ashtabula disaster, every bridge and trestle on this entire line has been carefully examined by an experienced bridge builder in company with the road masters of each particular division, and all pronounced safe.

Some suggestions for improvement have been made, which are being acted upon.

I am fully convinced that the public need have no apprehension as far as this road is concerned.

Yours respectfully,

E. B. PHILLIPS,
General Manager.

GREEN BAY & MINNESOTA RAILROAD Co.,
General Manager's Office,
GREEN BAY, July 14, 1877.

HON. DANA C. LAMB, *Railroad Commissioner, Madison, Wis.:*

DEAR SIR: Your circular letter of April last, relating to bridges on our line, was duly received, and since its receipt we have had all our bridges carefully and thoroughly examined by an experienced engineer, who reports that all our bridges are in a perfectly safe condition, and in good order for use. We have a man in our employ who is an experienced bridge builder and repairer and who gives his attention to the examination of our bridges and to repairing the same, and this, with the extra examination made in keeping with your suggestion, makes us feel entirely safe in regard to our bridges.

Very truly yours,

D. M. KELLY,
General Manager.

STATE OF WISCONSIN,
Office of Railroad Commissioner,
MADISON, July 6, 1878.

MARVIN HUGHITT, *General Manager C. & N. W. Railway:*

DEAR SIR: Complaints, or rather doubts, as to the safety of your bridge at Merrimac reach this office almost daily. These may not be well founded, but I would suggest, for your own interest that you cause an inspection to be made and a report made to this office, that the people may have no doubts as to its entire safety.

Very respectfully,

DANA C. LAMB,
Commissioner.

CHICAGO & NORTHWESTERN RAILWAY,
Office of General Manager,
 CHICAGO, July 7, 1877.

HON. DANA C. LAMB, *Railroad Commissioner, Madison, Wis.:*

DEAR SIR: I am in receipt of your letter of the 6th inst., calling attention to the Merrimac bridge, and suggesting an inspection of that structure.

In addition to the force constantly employed by the company under the direction of its chief engineer in examining and making repairs when found to be needed, the company employed, in May last, a careful and skilful engineer, who was instructed to carefully examine all the bridges on the various lines of railway operated by it within the state of Wisconsin, and to make full and complete report as to their condition.

This examination was completed, and the report submitted on June 23, less than two weeks since.

I am pleased to say that all the bridges are reported to be in safe condition, including the one referred to in your letter.

Yours truly,

MARVIN HUGHITT,
General Manager.

CORRESPONDENCE WITH THE RECEIVER OF THE
 WEST WISCONSIN RAILWAY.

STATE OF WISCONSIN,
Office of Railroad Commissioner,
 MADISON, January 28, 1877.

W. H. FERRY, Esq., *Receiver West Wisconsin Railway.*

DEAR SIR:—Complaint having been made to this office of the condition of the West Wisconsin Railway, of which you have recently been appointed receiver, I deemed it my duty to carefully inspect the condition of the road "and the manner of its conduct and management with relation to the public safety and convenience," as provided by section 2, chapter 57, laws of 1876. Accordingly on the 19th day of this month I made an official inspection of the road, accompanied by Col. J. C. Spooner, the attorney

of the receiver, and Mr. B. Shute, who has charge of the bridges on the line of the road, from which inspection, I am compelled to draw the following conclusions:

1st. The two trusses at Black River Falls and the piers on which they rest should be entirely rebuilt, and such work on the approaches as may be necessary for making it safe. Your bridge experts understand better than I what timbers need replacing. The bridges across the Eau Claire, the Chippewa, the Red Cedar and Willow rivers seem to be sound, and with some additional bracing and bolting have the appearance of being entirely safe. There are, however, a large number of small bridges and waterways which would seem to require early attention. Your bridge builder, however, seems to understand the necessity, and informs me that he has already contracted for the replacement, and was only waiting for the splice driver.

I am informed that you have made a large renewal of ties this season, with scarcely any new rails.

I notice that the iron is badly worn, leaving the track rough and uncomfortable. It is of course on a cursory examination difficult to say how much of the original iron can be used in safety or how much should be replaced.

I am informed that you contemplate the replacement or renewal of some forty miles of rail. In my opinion, that is the least you can reasonably demand. As the season is already advanced it may not be possible to properly change and replace more than this quantity.

Permit me, however, in my official capacity, to call your immediate attention to the foregoing recommendation, believing it to be my duty, as required by section 2, chapter 57, laws of 1876.

Very respectfully yours,

DANA C. LAMB,
Railroad Commissioner.

West Wisconsin Railway,

W. H. FERRY, *Receiver.*

CHICAGO, ILL., *July 5, 1877.*

HON. DANA C. LAMB, *Railroad Commissioner.*

DEAR SIR:—Your favor of June 28th has been received and filed with my report in the office of the circuit court of the United States for the western district of Wisconsin. I most fully agree with what you, in your official capacity, have thought proper to say, and considered it my duty to present it to the Hon. Court that appointed me receiver. Pending the rebuilding of the two trusses mentioned, I have caused the old ones to be strengthened by additional supports or piers, to make them perfectly secure until a new bridge can be put there in place, which will be done at as early a day as possible. All the other bridges, both large and small, are having thorough repairs or renewals. During the past and present year, more than one-third of the old ties will have been taken out, and their places supplied with new ones, increasing the number to twenty-six hundred and forty ties per mile. Arrangements are nearly perfected, and the steel is now being delivered for forty miles of new steel rails to be laid this season. It is fully believed that the repairs and improvements made upon the road this season will make it safe and comfortable for the coming winter. The necessity for these repairs, and the impossibility of paying for them from the earnings of the road, presents a very unsatisfactory view to the holders of its securities. A new lien upon the road, in the form of Receiver's Certificates, taking precedent of all other securities, has become unavoidable, as low rates and general shrinkage in business have cut off all sources of revenue from which the means might be obtained for paying for the repairs that have become so necessary.

Very respectfully yours,

W. H. FERRY,

Receiver.

ORDER OF COURT.

GEORGE BURNHAM et al.

vs.

THE WEST WISCONSIN RAILWAY Co. et al.

In the circuit court of the United States for the western district of Wisconsin.

Upon reading the report and estimates, filed as of this date made by William H. Ferry, receiver, appointed in this cause, and also the notice given to said receiver by Dana C. Lamb, railroad commissioner of the state of Wisconsin, it is ordered that said receiver be authorized to borrow from the holders of the bonds of said West Wisconsin Railway Company the sum of two hundred thousand dollars, and to issue therefor Receiver's Certificates, payable at any time not exceeding one year from the date thereof, which certificates shall bear interest at not exceeding the rate of eight per cent. per annum, and shall be a first lien upon all the property and franchises of said railway company in the hands of said receiver; the manner of negotiating said certificate shall be as follows: The receiver shall give notice of the terms and conditions of said loan to all of said bondholders, by publishing such notice in the *Chicago Tribune* and *New York Times*, three insertions in each of said papers.

Any of such bondholders may take such *pro rata* share of such loan as his bonds bear to the whole amount of the bonds of said company, and at the end of thirty days after such notice shall have been published as aforesaid, any part of said loan which shall then remain untaken, may be taken by any of the bondholders of said company.

The said sum of two hundred thousand dollars shall be used by said Receiver in rebuilding the bridge at Black River Falls, and in putting down steel rails in place of iron rails which have become worn out, and in paying such obligations and operating expenses as he has been or may be required to pay by order of this court.

Entered, July 9th, A. D. 1877.

GEORGE BURNHAM et al.

vs.

THE WEST WISCONSIN RAILWAY Co. et al.

WM. H. LEONARD and J. DUTTON STEELE,

vs.

THE WEST WISCONSIN RAILWAY Co. et al.

In the circuit court of the United States, for the Western District of Wisconsin.

This day came William H. Ferry, receiver of the West Wisconsin Railway Company, and presented his report showing that he had as receiver contracted for the purchase of thirty-five hundred tons of steel rails for said railway, and for the rebuilding of the railroad bridge across the Black river, and the repair of the draw in the railroad bridge across the St. Croix river at Hudson, and showing that said receiver had not issued any receiver's certificates under the order heretofore entered in the above entitled causes, and that he could not negotiate such certificates at a lower rate of interest than eight per cent. per annum.

It is therefore ordered that said report be filed, and that said William H. Ferry be authorized to negotiate receiver's certificates bearing eight per cent. interest per annum at par, and that William H. Leonard, receiver of the lands and land grant funds of said West Wisconsin Railway Company be, and he is hereby authorized to pay over to said William H. Ferry any money which he may now hold or which may hereafter come to his hands as such receiver, and to receive from said Ferry receiver's certificates bearing interest at the rate of eight per cent. per annum therefor, holding such certificates in place of the money so paid over by him to said Ferry, and subject to the same equities. The whole amount of the certificates to be issued by said Ferry shall not exceed the amount specified in the order heretofore entered herein, and said certificates shall be payable at or before the expiration of one year from the date thereof.

Entered, September 17, 1877.

UNITED STATES OF AMERICA — *Western District of Wisconsin.*

I, F. M. Stewart, clerk of the district court of the United States

of America for the Western district of Wisconsin, do hereby certify that I have compared the writings annexed to this certificate with the original now in my custody, and they are true copies of their respective originals and are correct transcripts therefrom, and of the whole thereof, now on file and remaining of record in my office.

In testimony whereof, I have hereunto set my hand and duly affixed the seal of the said court, at the city of Madison, in the said Western District of Wisconsin, this 18th day of September, in the year of our Lord, one thousand eight hundred and seventy seven, and of the independence of said United States, the one hundred and second.

F. M. STEWART,
Clerk.

RECEIVER'S REPORT.

RECEIVER'S OFFICE OF THE WEST WISCONSIN RAILWAY,
JANUARY 19, 1878.

To the Hon. DANA C. LAMB, Railroad Commissioner of the state of Wisconsin:

In reply to your official favor of the 15th inst., I respectfully submit copies of the order of court, pursuant to which receiver's certificates have been issued for the purposes therein named.

In the matter of improvements, it has been difficult, where so much was required, to decide what should be done, and what left undone, having reference to my duties as an officer of court, which is to me of the first importance, my respect to your official position, and desire to the fullest extent in my power to comply with your recommendations, and also to my individual views of what is necessary for a safe, efficient and economical working of the road. I construe my duties as requiring me to operate the road, with as small expenditure of money for rebuilding, repairing or improvement as is possible, having in view the safe and efficient transportation of persons and property.

The terrible accident, to which you referred, occurring a year since at Ashtabula, the one that has just occurred at Tariffville, give unmistakeable proof that the public rightfully look to you for a guarantee against the occurrence of such accidents in your state

and I am confident I do not mistake the instructions of the court, in taking every precaution, within the limits of reasonable expenditure, to insure perfect safety of all bridges on the line of the road. As thorough examination as is possible has been made of every cattle guard, culvert, bridge and trestle. These have been repaired or rebuilt, as seemed necessary, the details of which work would be too voluminous for this report. The bridge at Black River Falls was found to be in such condition that further repairs would only be a waste of money, without giving any certainty of safety. Stone piers of solid masonry have been built, and a combination bridge erected, and the approaches strengthened, so that it is now believed to be in all respects perfect. It is not possible to absolutely know that a bridge under any conceivable circumstances will not fail; but after completing the additional supports to one more bridge, as a measure of greater precaution, it is confidently believed that every culvert, bridge and trestle on the road is perfectly secure, until spring shall enable such work to be done as may then appear necessary.

There has been laid of new steel rails since July 1st, 4,112 ~~1112~~ tons, equal to forty-six and three quarters miles, of which 3,500 tons was in compliance with the direct order of court, and ~~612~~ ~~1112~~ 612 tons as a portion of the annual wear depreciation, which belongs to operating expenses, or about one-third of what is annually required for renewal of iron rail. The revenues of the road did not admit of as large an expenditure as this required. All of this steel has been very carefully laid on 2,640 ties to the mile, with new steel frogs of the most improved pattern at the switches, for side tracks. The joints are all secured with the best pattern of angle plates, bolts and nuts and nutlocks, care having been taken in properly surfacing and ballasting the track to protect the steel laid, with some attention to ditching, but not to the extent required for a completed road bed.

From the old rails taken up and replaced by steel rails, those having a fair surface have been selected, and put in place of more ragged and broken iron. This work has been expensive and unsatisfactory, costing too much for frequent handling, cutting off the battered ends of the rails, drilling and relaying and when relaid not making a reliable or satisfactory track, but making one that will have to be replaced at an early date with entirely new rails. In

this matter I have not deemed it proper to act fully in accord with my judgment to the extent most conducive to the best future interests of the property, my duties seeming to require that I should do no more than was absolutely necessary for the safe and efficient transportation of persons and property. I consider this so far accomplished that the road can now be safely operated (with careful watch of the defective iron) until spring, and until a settled ownership shall enable such further repairs and renewals to be made as shall then be required. The close of winter will fully develop what these may be; it is not proper that I should now attempt to suggest, as my official connection with the road as its receiver will doubtless then have been closed.

There has been 110,000 new ties put into the track during the past year in place of broken and rotted ones and in increasing the number per mile, giving the new steel a perfect bearing, and strengthening the capacity of the old rails, giving them greater security.

There has been twenty-three miles of fencing built during the season — all that the demands of adjoining property has demanded.

Passenger coaches have been put on all the roads for this winter's service, in perfect condition, well heated and ventilated, insuring to the traveling public comfort and safety.

I close this communication trusting that it is as full and satisfactory as you require, and that it covers all the matters to which you officially called my attention. I may properly add that every effort has been made to comply with your recommendations and the requirements of your state, so far as could be done, without doing injustice to the bondholders (whose money has proved to have been so unfortunately invested), by incurring expenditures that could be reasonably and safely postponed or avoided.

Yours respectfully,

WM. H. FERRY,
Receiver, &c.

GENERAL RAILROAD LAWS.

Chapter 57— Laws of 1876.

AN ACT to amend chapter two hundred and seventy-three (273), of the laws of 1874, entitled, "An act relating to railroads, express, and telegraph companies in the state of Wisconsin," and to repeal other sections and acts named therein.

The people of the state of Wisconsin, represented in senate and assembly, do enact as follows:

Section 1. Within ten days after the passage and publication of this act, the governor, by and with the consent of the senate, shall appoint a railroad commissioner, who shall hold his office for the term of two years from the fifteenth day of February, and until his successor is appointed and qualified. Every two years thereafter, the governor, by and with the advice and consent of the senate, shall appoint a railroad commissioner, who shall hold his office for the term of two years, and until his successor shall be appointed and qualified. And the nomination of railroad commissioner shall hereafter be sent to the senate by the governor during the month of January, immediately preceding the beginning of such commissioner's term of office. The governor shall have power to remove such commissioner, and appoint another to fill the vacancy, at any time in his discretion. No person owning any bonds, stock or property in any railroad company, or who is in the employment of, or in any way or manner pecuniarily interested in any railroad corporation shall be so appointed.

Section 2. The railroad commissioner shall inquire into any neglect or violation of the laws of this state by any railroad corporation doing business therein, or by the officers, agents, or employees thereof, and shall also, from time to time, carefully examine and inspect the condition of each railroad in the state, and of its equipment and the manner of its conduct and management with relation to the public safety and convenience. He shall also examine and ascertain the pecuniary condition and the manner of financial management of each and every railroad corporation doing business in this state.

Section 3. To enable said commissioner to make the report and

return required by section twelve (12), of the act of which this is amendatory, the president or managing officer of each railroad corporation in the state, shall annually make to the railroad commissioner, in the month of October, such returns, and in the form he may prescribe, as will afford the information required for his said official report. Such returns shall be verified by the oath of the officer making them, and any railroad corporation whose return shall not be made as herein provided, within the month of October, shall be liable to a penalty of one hundred dollars (\$100) for each and every day after the thirty-first day of October that such return shall be wilfully delayed or refused.

Section 4. Said railroad commissioner shall, during the month of January in each year, ascertain and make return to the state treasurer as hereinafter provided. 1st. The actual cost of each railroad in this state up to and including the 31st day of the next preceding December, and if such railroad shall be partly in and partly out of this state, then the actual cost of so much thereof as is in this state. 2d. The total gross receipts resulting from the operation of every of every such railroad during the next preceding year ending on the 31st day of December, or that part of the same which is in this state. 3d. The total net earnings resulting from the operation of any such railroad during the next preceding year, ending on the 31st day of December, or that part of the same which is in this state. 4th. The total interest-bearing indebtedness of the company owning or operating such railroad, and the amount of interest paid by such company during the next preceding year ending on the 31st day of December, and if any part of such indebtedness has been incurred in consequence of the construction, maintenance, repair, removal, or operation of any part of such railroad which is not in this state, or for equipment for such part, such railroad commissioner shall ascertain and determine in such manner as he shall think just and equitable how much of its indebtedness is justly chargeable to that part of said railroad that is in this state, and how much interest shall have been paid by such company during the year ending on the 31st day of the next preceding December, or [on] that part of such indebtedness which is justly chargeable to that part of said railroad that is in this state. The commissioner shall prescribe the form and manner in which all reports required from railroad companies under the provisions of

this act shall be made, and suitable blanks for that purpose, as by said commissioner directed, shall be provided by the secretary of state. The record of said commissioner shall at all times be open to inspection by the governor, secretary of state, attorney-general, and legislature.

Section 5. Said railroad commissioner shall have power to administer oaths or affirmations, to send for persons or papers, under such regulations as he may prescribe, and shall at any and all times have access to any and all books and papers in any railroad office kept for and used in any railroad office by any railroad company in this state.

Section 6. Said railroad commissioner, in making any examination as contemplated in this act, for the purpose of obtaining information pursuant to this act shall have power to issue subpoenas for the attendance of witnesses by such rules as he may prescribe. In case any person shall willfully fail or refuse to obey such subpoena, it shall be the duty of the circuit court of any county, upon the application of said commissioner, to issue an attachment for such witness and compel such witness to attend before the commissioner and give his testimony upon such matters as shall be lawfully required by such commissioner, and said court shall have power to punish for contempt as in other cases of refusal to obey the process and order of such court.

Section 7. Any person who shall willfully neglect or refuse to obey the process of subpoena issued by said commissioner, and appear and testify as therein required, shall be deemed guilty of a misdemeanor and shall be liable to arraignment and trial in any court of competent jurisdiction, and on conviction thereof shall be punished for such offense by fine not less than fifty dollars nor more than five hundred dollars, or by imprisonment of not more than thirty days, or both, in the discretion of the court before which such conviction shall be had.

Section 8. No railroad corporation shall charge, demand or receive from any person, company or corporation, for the transportation of persons or property, a greater sum than it shall at the same time charge, demand or receive from any other person or corporation for a like service from the same place; and no railroad corporation shall charge or receive a larger sum per carload, from one person than any other, shipping from the same place; but this last provision shall not apply to shipments from connecting points.

Section 9. No railroad corporation shall charge, demand or receive from any person, company or corporation, an unreasonable price for the transportation of persons or property, or for the handling or storing of any freight, or for the use of its cars, or for any privilege or service afforded by it in the transaction of its business as a railroad corporation.

Section 10. It shall be the duty of any railroad corporation, when within their power so to do, and upon reasonable notice, to furnish suitable cars to any and all persons who may apply therefor, for the transportation of any and all usual kinds of freight, with all reasonable dispatch, and to provide and keep suitable facilities for the receiving and handling the same at any depot on the line of its road.

Section 11. Any railroad corporation who shall violate any of the provisions of this act as to extortion or unjust discrimination, or the provisions hereof establishing rates, shall forfeit for each and every such offense to the company, person, or corporation aggrieved thereby, three times the actual damage sustained, together with the costs of suit, to be recovered in a civil action therefor, and all prosecutions shall be made at the expense of the state; and it shall be the duty of said railroad commissioner, on receiving complaint in writing from any citizen of this state, stating that any railroad corporation has violated any of the provisions of this act, and specifying the acts complained of, to investigate such alleged violation, and if on such examination he shall find such complaint well founded, he may, in his discretion, report the facts to the attorney-general, and thereupon it shall be the duty of said attorney-general to prosecute said complaint at the expense of the state for the benefit of the party aggrieved.

Section 12. No railroad corporation shall consolidate the stock property or franchise of such corporation with, or lease or purchase the works or franchises of, or in any way control any other railroad corporation owning or having under its control a parallel or competing line; nor shall any officer of such railroad corporation act as the officer of any other railroad corporation owning, or having the control of, parallel or competing lines, and the question whether such railroads are parallel or competing lines shall, when demanded by the complainant, be decided by a jury as in other civil issues; *provided*, that the provisions of this section shall not apply to any

contracts now existing, where one corporation has become responsible for the liabilities of another, either by advances heretofore made, or by the guarantee of bonds previous to the passage of this act; nor shall it apply to any railroad corporation which, prior to the passage of this act, shall have been authorized to purchase or hold stock in any other railroad corporation.

Section 13. No president, director, officer, agent or employee of any railroad or transportation company, shall be interested directly or indirectly in the furnishing of material or supplies to such company, or in the business of transportation as a common carrier of freights or passengers, over the lines owned, leased, controlled or operated by such company.

Section 14. In the construction of this act, the phrase railroad shall be construed to include all railroads and railways operated by steam, and whether operated by the corporation owning them, or by other corporations or otherwise. The phrase railroad corporation shall be construed to mean the corporation which constructs, maintains, or operates a railroad operated by steam power.

Section 15. The Chicago, Milwaukee and St. Paul Railway Company shall file with the railroad commissioner, before the day when this act shall take effect, the regular published schedule of their tariff rates for the transportation of persons and property, which was in force on their railroads on the 15th day of June, A. D 1872, duly verified by the oath of the general freight agent, of said company, thereto attached, and that company and the Western Union Railroad Company, and the Chicago and Northwestern Railway Company, shall not demand, collect or receive a greater compensation for the transportation of persons and property than is fixed in such schedule for corresponding distances. This provision shall also apply to such lines of railroads as have been built and put into operation by either of said companies and operated under lease or otherwise since the date above mentioned; *provided*, that the Chicago, Milwaukee and St. Paul Railway Company, and the Western Union Railroad Company, and the Chicago and Northwestern Railway Company, shall sell at all ticket stations, on their respective lines, within this state, tickets for five hundred miles, which shall be transferable; also round-trip tickets, for first-class passengers to and from any station within this state, on their respective lines of road, at a uniform rate of three cents per mile; *and pro-*

vided, further, that no railroad corporation shall be compelled to accept less than five cents for the transportation of any passenger between any points.

Section 16. All the powers, duties, and privileges conferred on the board of railroad commissioners by the acts to which this act is amendatory and not herein repealed, are hereby conferred on the railroad commissioner to be appointed under the provisions of this act.

Section 17. The commissioner shall have the right of passing, in the performance of his duties concerning railroads, on all railway rains in this state free of charge.

Section 18. Nothing contained in this act shall be taken as in any manner abridging or controlling the rates for freight charged by any railroad company in this state for carrying freight which comes from beyond the boundaries of the state, but said railroad companies shall possess the same power and right to charge such rates for carrying such freight as they possessed before the passage of this act.

Section 19. All those railroad companies whose lines of road are now incomplete or are in process of construction, and to aid in the building of which the general government has donated grants of land, and which are not exempted from taxation on said lands for the next five years, are hereby exempted from the payment of the license fees required by law for said five years.

Section 20. Before entering upon the duties of his office, said commissioner shall make and subscribe and file with the secretary of state an affidavit in the following form: "I do solemnly swear (or affirm) that I will support the constitution of the United States and the constitution of the state of Wisconsin, and that I will faithfully discharge the duties of railway commissioner according to the best of my ability; that I am not a stockholder, officer, or employé of any railroad or freight company, or in any way interested therein;" and shall enter into bonds, with security to be approved by the governor, in the sum of twenty thousand dollars, conditioned for the faithful performance of his duty as such commissioner.

Section 21. The commissioner appointed under the provisions of this act shall receive for his services the sum of three thousand dollars per annum, payable monthly, at the end of each month, and three dollars per day for traveling expenses, for each and every day

actually traveled in the performance of the duties hereby required. He shall be furnished with all office furniture and stationery, and necessary books and maps at the expense of the state; and the said commissioner is hereby authorized and empowered to employ a clerk at an annual salary of twelve hundred dollars, payable at the end of each month. The office of said commissioner shall be kept at Madison, and all sums of money authorized to be paid by this act, out of the state treasury, shall be paid only on the order of the governor; *provided*, that the total sums of money to be expended by said commissioner for office rent, furniture, and stationery, shall in no case exceed the total sum of eight hundred dollars per annum.

Section 22. Sections one, two, three, four, five, six, seven, eight, thirteen and fourteen, of chapter 273, of the laws of 1874, of which this is amendatory; chapter 341 of the laws of 1874, entitled "An act in relation to railroads;" chapter 334 of the laws of 1875, entitled "An act to amend chapter 273 of the laws of 1874, entitled 'An act relating to railroad, express and telegraph companies in the state of Wisconsin,'" and the first section of chapter 113 of the laws of 1875, are hereby repealed; *provided*, that nothing herein contained shall in any manner affect any litigation now pending in any of the courts of this state, or any court or courts of the United States.

NOTE BY THE COMMISSIONER.—The preceding sections are a compilation of the laws now in force relating to passenger and freight tariffs, in the state of Wisconsin, the sections so numbered as to place in their proper order each particular subject.

As the preparation for publication of the reports of the several companies, and of the tables referred to in the foregoing report, would necessarily delay the publication of the report proper, I have thought best to present this portion of the report without further delay.

REPORTS

OF THE

RAILWAY COMPANIES

MADE TO THE

RAILROAD COMMISSIONER,

For the Year ending Sept. 30, 1877.

GENERAL INSTRUCTIONS.

OFFICE OF THE RAILROAD COMMISSIONER,
MADISON, August 10, 1877.

To the —— Railway Company:

This blank is furnished, you for the purpose of your entering therein the annual report, required by law, to be made by you to this office for the term ending September 30, A. D. 1877. Your attention is called to the special provisions relating thereto, to be found upon the last page of the cover.

In case answers to any of the questions cannot conveniently be given in the blank spaces for the same, they should be set forth in separate sheets, appended.

Where figures are given from estimates, a "note" should be made to that effect, explaining upon what basis the estimates were made.

By order of the Railroad Commissioner,

JAMES H. FOSTER,
Secretary.

NOTE BY THE COMMISSIONER.

One of the principal objects proposed by the legislature in the creation of a railroad commission is the compilation of facts and statistics connected with the building and operating of railroads in this state. The commissioner would therefore invite from all companies, and all parties interested, full information, not only on the points covered by the tables and questions herein contained, but also on all others connected with the subject. The commissioner will be happy to coöperate with the companies, and with all interested, in obtaining all possible information concerning building and operating railroads, and their management in general, to the end of establishing and building up an *era* of harmony and good will between the *companies*, who transport, and the *people*, who ship the commodities which form the commerce of our state. And any information or explanation in his possession will be cheerfully given, upon request; and to promote this most desirable end, the commissioner would solicit, in making up these reports or otherwise, from railroad companies and others, any suggestions, explanations or information which can be made available or useful to the interests of the whole people.

DANA C. LAMB,
Commissioner.

SECTIONS OF LAW CONCERNING REPORTS.

[General laws of Wisconsin, sessions of 1875 and 1876.]

* SECTION 3. To enable said commissioner to make the report and return required by section twelve (12), of the act of which this is amendatory, the president or managing officer of each railroad corporation in the state shall annually make to the Railroad Commissioner, in the month of October, such returns and in the form he may prescribe, as will afford the information required for his said official report. Such returns shall be verified by the oath of the officer making them, and any railroad corporation whose return shall not be made, as herein prescribed, within the month of October, shall be liable to a penalty of one hundred dollars (\$100) for each and every day after the thirty-first day of October that such return shall be willfully delayed or refused.

† SECTION 4. Said Railroad Commissioner shall, during the month of January in each year, ascertain and make return to the state treasurer as hereinafter provided. 1st. The actual cost of each railroad in this state up to and including the 31st day of the next preceding December, and if such railroad shall be partly in and partly out of this state, then the actual cost of so much thereof as is in this state. 2d. The total gross receipts resulting from the operation of every such railroad during the next preceding year ending on the 31st day of December, or that part of the same which is in this state. 3d. The total net earnings resulting from the operations of any such railroad during the next preceding year, ending on the 31st day of December, or that part of the same which is in this state. 4th. The total interest bearing indebtedness of the company owning or operating such railroad, and the amount of interest paid by such company during the next preceding year ending on the 31st day of December, and if any part of such indebtedness has been incurred in consequence of the construction, maintenance, repair, removal, or operation of any part of such railroad which is not in this state, or for equipment for such part, such Railroad Commissioner shall ascertain and determine in such manner as he shall think just and equitable how much of its indebtedness is justly chargeable to that part of said railroad that is in this state, and how much interest shall have been paid by such company during such year ending on the 31st day of the next preceding December, or [on] that part of such indebtedness which is justly chargeable to that part of said railroad that is in this state. The commissioner shall prescribe the form and manner in which all reports required from railroad companies under the

* Section 3, chapter 57, laws 1876.

† Section 12, chapter 273, laws 1874.

provisions of this act shall be made, and suitable blanks for that purpose as by said commissioner directed, shall be provided by the secretary of state. The record of said commissioner shall at all times be open to inspection by the governor, secretary of state, attorney-general and legislature.

‡ SECTION 5. Said Railroad Commissioner shall have power to administer oaths or affirmations, to send for persons or papers under such regulations as he may prescribe, and shall at any and all times have access to any and all books and papers in any railroad office kept for and used in any railroad office by any railroad company in this state.

‡ Section 9, chapter 273, laws 1874.

CLASSIFIED REPORTS.

REPORT

OF THE

CHICAGO, MILWAUKEE & ST. PAUL RAILWAY COMPANY,

For the year ending 30th September, 1877.

OFFICERS AND OFFICES OF THE COMPANY OPERATING.

NAMES.	OFFICES.	ADDRESSES.	SALARIES.
Alex. Mitchell.....	President.....	Milwaukee.....	.....
Julius Wadsworth	1st Vice President.....	New York.....	.....
R. D. Jennings.....	Secretary.....	Milwaukee.....	.....
Jno. W. Cary.....	General Solicitor.....	Milwaukee.....	.....
R. D. Jennings.....	Treasurer.....	Milwaukee.....	.....
S. S. Merrill.....	General Manager.....	Milwaukee.....	.....
Jno. C. Gault.....	Assistant Gen'l Manager	Milwaukee.....	.....
D. J. Whittemore.....	Chief Engineer.....	Milwaukee.....	.....
A. V. H. Carpenter.....	General Ticket Agent..	Milwaukee.....	.....
Wm. G. Swan.....	General Freight Agent.	Milwaukee.....	.....
J. P. Whaling.....	Auditor.....	Milwaukee.....	.....
Total Salaries.....	.....	.....	.....

1. General offices at Milwaukee, Wisconsin.

NAMES OF DIRECTORS	RESIDENCE.	NAMES OF DIRECTORS	RESIDENCE.
Alex. Mitchell.....	Milwaukee.....	Jere Millbank.....	New York.
Julius Wadsworth ..	New York.....	Geo. W. Wedd.....	Boston.
S. Chamberlain.....	Cleveland.....	A. R. Van Nest....	New York.
Jno. M. Burke.....	New York.....	Jno. Frankinton....	Milwaukee.
W. S. Gurnee.....	New York.....	S. S. Merrill.....	Milwaukee.
Peter Geddes.....	New York.....	J. M. Bowman.....	Kilbourn.
David Dows.....	New York.....	.....	.....

EXECUTIVE COMMITTEE.

Alex. Mitchell,
Julius Wadsworth.

S. Chamberlain,
W. S. Garnee,
Peter Geddes.

2. Date of annual election of Directors,
June.
3. Name and address of person to whom correspondence concerning this
report should be directed,
J. P. Whaling, Auditor, Milwaukee.

CAPITAL STOCK.

1. Capital stock authorized by charter.....
2. How many kinds of stock?
Two. Common and Preferred.
3. Amount of common stock..... \$15,399,361 00
4. Amount of preferred stock..... 12,274,488 00
5. Total capital stock \$27,673,744 00
6. Proportion of stock for Wisconsin*..... \$13,154,424 42
7. Rate of preference.....
8. How much *common* stock has been issued since Septem-
ber 30th, 1876..... None.
9. For what purpose? and what was received therefor? ...
10. How much *preferred* stock has been issued since Septem-
ber 30th, 1876..... None.
11. For what purpose? and what was received therefor?....

*Unless some good reason exists to the contrary, this proportion — and all other estimates of the same character — should be for the miles of road in this State compared with the whole. If made on a different basis, please state the reasons therefor.

FUNDED AND UNFUNDED DEBT.

	Total.	Wisconsin lines.
1. Describe severally all outstanding classes of bonds, including amount, dates of issue, interest, where and when payable. (See statement, p. 48.....	\$29,954,500 00	\$14,238,558 00
2. Amount of debt not secured by mort- gage, in excess of assets.....	None.	None.
3. Total funded debt.....	\$29,954,500 00	\$14,238,558 00
4. Net cash realized from bonded debt above described.....		
5. Proportion of debt, bonded and floating, for Wisconsin.....		\$14,238,558 00

Funded and Unfunded Debt — continued.

Class of Bonds.	Date of issue.	Rate of interest.	Where payable.	When Payable.	Amount.
Consolidated mortgage bonds	1875	7 per cent.	New York	July 1, 1905	\$5,768,000 00
First mortgage, La Crosse Division bonds	1863	7 per cent.	New York ..	Jan. 1, 1893	6,600,000 00
First mortgage, Iowa and Minnesota Division bonds	1867	7 per cent.	New York	July 1, 1897	8,810,000 00
First mortgage, Prairie du Chien Division bonds	1868	8 per cent.	New York	Feb. 1, 1898	8,674,000 00
Second mortgage, Prairie du Chien Division bonds	1868	7 $\frac{1}{2}$ per cent.	New York	Feb. 1, 1898	1,315,000 00
First mortgage, Chicago and Milwaukee Division bonds	1873	7 per cent.	New York ..	Jan. 1, 1903	2,500,000 00
First mortgage, St. Paul (or River) Division bonds	1873	7 per cent.	London	Jan. 1, 1903	4,000,000 00
First mortgage, Iowa and Dakota Division bonds	1869	7 per cent.	New York ..	July 1, 1899	658,000 00
Second mortgage bonds	1872	7 per cent.	New York ..	Jan. 1, 1902	213,000 00
First mortgage, Hastings and Dakota Division bonds	1864	7 per cent.	New York ..	Oct. 1, 1884	675,000 00
Minnesota Central bonds	1864	7 per cent.	New York ..	July 1, 1884	190,000 00
Milwaukee and Western bonds	1861	7 per cent.	New York ..	July 1, 1891	234,000 00
Equipment and bridge bonds	1873	10 per cent.	New York ..	June 1, 1883	219,000 00
Real estate purchase money bonds	1864	7 per cent.	New York ..	July 1, 1874	97,500 00
Milwaukee city bonds	1864	7 per cent.	New York ..	March 1, 1874	1,000 00
Total					\$29,954,500 00

COST OF ROAD AND EQUIPMENT.

	Total.	Wisconsin lines.
1. What amount has been expended for right of way, between Oct. 1, 1876, and Sept. 30, 1877?.....	\$12,908 52	\$3,741 78
2. What for real estate, and for what purpose purchased? Depot grounds, etc.		
3. What has been expended in construction between Oct. 1, 1876, and Sept. 30, 1877?	611,791 03	307,704 49
4. What for improvement?.....		
5. What for other items of expense, for construction and equipment?.....	202,290 29	96,087 89
6. What amounts, if any, have been paid for roads or portions of roads not built by company during the time mentioned...	None.	None.
7. Total expended between Oct. 1, 1876, and Sept. 30, 1877.....	\$826,989 84	\$407,534 16
8. Total cost of entire line, as per last report	\$55,804,476 35	.....
9. Total cost of entire line, to date.....	\$56,631,466 19	.....

EXPENDITURES FOR CONSTRUCTION AND PERMANENT IMPROVEMENTS.

October 1, 1876, to September 30, 1877.

DESCRIPTION OF PROPERTY.	Total.	In Wisconsin.
1. What amount has been expended for grading, between Oct. 1, 1876, and Sept. 30, 1877.		
2. How much for bridges.....	\$284,241 22	\$129,378 79
3. How much for tunnels.....		
4. How much for iron bridges.... } See ques. 2		
5. How much for wooden bridges. }		
6. How much for ties and tying.....		
7. How much for iron rails. No. miles.. Lbs. wt. per yard.....		
8. How much for steel rail No. miles... Lbs. weight per yard.....		
9. How much for chains, spikes, fish-bar, etc..		
10. How much for laying track.....		
11. How much for passenger and freight stations, etc. No. stations....	23,306 75	2,372 63
12. How much for engine and car shops. No..		
13. How much for machine shops. No....		
14. How much for machinery and fixtures.....		
15. How much for engine houses. No.....		
16. How much for car sheds. No....		
17. How much for turn tables. No....		
18. How much for track and other scales. No..		
19. How much for coal sheds, etc. No ..	3,111 20	969 72
20. How much for fencing. No miles....	5,492 67	
21. How much for elevators. No....	152,054 61	110,435 68
22. How much for locomotives and tenders, No. 2. Av. wt. tons....	15,200 00	
23. How much for snow plows, as per schedule. No... Av. wt. tons....		
24. How much for wreckers. No.... Av. wt. tons....		
25. How much for passenger cars, 1st class. No. 2. Av. wt. tons....	7,000 00	
26. How much for passenger cars, 2d class. No.		
27. How much for baggage cars. No.. Av. wt. tons....		
28. How much for mail cars. No.. Av. wt. tons....	4,833 43	
29. How much for exp. car. No.. Av. wt. tons....		
30. How much for freight cars, closed. No. 210. Av. wt. tons....	99,330 00	
How much for stock cars. No. 70. Av. wt. tons....	36,750 00	
31. How much for platform cars. No.. Av. wt. tons....		
32. How much for hand cars. No.. Av. wt. tons....		
How much for steam shovel.....	4,140 84	79,445 78
33. How much for machinery and to accompany trains, repair track, etc., used by trackmen or others.....		
34. How much for all other property not enum'd.	191,529 62	84,981 56
35. Total amount expended between. Oct. 1, 1876, and Sept. 30 1877..	\$826,989 84	\$407,534 16

CHARACTERISTICS OF ROAD.

LENGTH OF ROAD.

From.	To.	Entire length.	Length in Wisconsin.	Wt. of rail per yard.
Chicago.....	Milwaukee.....	85 miles.	88 miles.	From 56 to 60 pounds per yard.
Milwaukee.....	Prairie du Chien.	193 "	193 "	
No. McGregor..	St. Paul.....	212 "	.....
No. McGregor..	McGregor.....	1 "	.....
Milwaukee.....	La Crosse.....	196 "	196 "	
La Crescent....	St. Paul.....	128 "	.....
Milwaukee.....	Portage City...	96 "	96 "	
No. Milwaukee..	Schwartzburg...	6 "	6 "	
Horico.....	Berlin.....	43 "	43 "	
Rush Lake.....	Winneconne....	14 "	14 "	
Watertown....	Madison.....	87 "	87 "	
Milton.....	Monroe.....	42 "	42 "	
Calmar.....	Algona.....	126 "	.....
Conover.....	De orah.....	10 "	.....
Austin.....	Mason City.....	40 "	.....
Mendota.....	Minneapolis....	9 "	.....
Hastings.....	Glencoe.....	75 "	.....
Sabula.....	Marion.....	87 "	.....
Total.....	1,400 miles.	665 miles.	

The C., M. & St. Paul R'y Co. are operating the Oshkosh and Miss. River R'y Co., from Ripon to Oshkosh — length 20 miles — 65 per cent. of the gross earnings of which is included in the earnings as stated on page 7 of this report

Aggregate length of tracks operated by this company, computed as single track, 1,400 miles.

Number of junction stations, 33.

What is the gauge of your lines? 4 feet, 8 $\frac{1}{8}$ inches.

DOINGS OF THE YEAR IN TRANSPORTATION.

CHARACTER OF SERVICE.	No. of persons employed.	Average sal'y per annum.
1. Division and assistant superintendents.....	6	.....
Clerks in all offices.....	188	.....
Master and assistant mechanics.....	6	.....
Conductors.....	116	.....
Engineers.....	167	.....
Brakemen.....	258	.....
Flagmen, switch-tenders, gate-keepers and watchmen	161	.....
Station agents.....	215	.....
Section men }	1,745	.....
Laborers.....		
Other employes (includes shop and round-house men, train baggage-men, firemen, and other employes not enumerated above... ..)	1,680	.....

Doings of the Year in Transportation — continued.

MILEAGE AND TONNAGE.	MILES.	
	Whole line.	In Wisconsin.
2. Number of miles run by passenger trains	1,180,616	679,848
3. Number of miles run by freight and mixed trains	8,049,083	1,847,556
	4,222,649	2,527,404
4. Number of miles run by construction and other trains.....	832,673	158,060
5. Total mileage	4,535,824	2,685,464
6. Total number of passengers carried	1,095,715	679,888
7. Total number of freight carried one mile ..	242,845,103	155,612,548
8. Total number passengers carried one mile. ...	54,952,700	31,718,416
9. Average distance traveled by each passenger, exclusive of 1,000 and 500 mile tickets	47 miles.	48 miles.
	Miles per hour.	
10. The highest rate of speed allowed for express passenger trains.	30	
11. Schedule rates of same, including stops	20 to 25	
12. The highest rate of speed allowed for mail and accommodation trains.....	25	
13. Schedule of same, including stops ...	20	
14. The highest rate of speed allowed for freight trains	12	
15. Schedule rate of same, including stops	10	
16. Amount of freight carried per car. Maximum load is 12 tons. Our usual maximum load is 10 tons		
17. TOTAL FREIGHT IN TONS.	Whole line.	In Wisconsin.
Grain	465,798	231,411
Flour	165,037	63,521
Provisions.....	28,871	15,472
Salt, cement, water lime and stucco.....	25,620	22,126
Manufactures, including agricultural implements, furniture and wagons.....	21,578	8,964
Live stock	90,501	38,718
Lumber and forest products.....	835,269	194,755
Iron, lead, and mineral products.....	15,768	10,060
Stone, brick, lime, sand, etc.....	30,415	20,963
Coal.....	81,287	33,267
Merchandise and other articles.....	837,092	168,888
Total tons.....	1,561,736	798,095

EARNINGS DURING THE YEAR ENDING SEPTEMBER 30, 1877.

MONTHLY EARNINGS FROM ALL SOURCES.

Months.	PASSENGERS.		FREIGHT.		MAILS, EXPRESS, AND ALL OTHER SOURCES.		TOTALS.	
	Whole Line.	Wisconsin.	Whole Line.	Wisconsin.	Whole Line.	Wisconsin.	Whole Line.	Wisconsin.
1876.								
October	\$185,870 87	\$110,619 24	\$563,016 75	\$382,244 25	\$39,021 81	\$24,552 05	\$787,909 43	\$517,415 54
November	144,948 34	84,908 35	545,651 52	367,453 78	38,603 74	27,038 48	729,203 60	479,400 61
December	117,415 76	66,257 65	443,839 77	301,743 98	36,321 55	23,466 09	597,567 08	391,467 72
1877.								
January	91,512 12	53,189 68	249,401 88	158,701 32	32,410 88	18,905 25	373,824 38	270,796 25
February	98,831 10	56,109 69	266,870 52	157,330 85	30,897 77	17,598 83	396,099 39	231,039 37
March	130,082 26	67,281 66	307,049 43	183,927 66	32,482 81	18,706 58	460,214 00	269,915 90
April	134,035 40	76,796 50	315,498 94	196,236 08	31,430 13	18,118 43	490,964 47	291,151 01
May	188,089 99	77,611 50	407,616 64	250,245 71	33,033 89	18,989 27	576,731 02	346,846 48
June	152,570 67	86,770 59	339,356 31	216,849 56	32,433 98	18,651 58	544,360 96	321,762 73
July	175,399 21	99,992 35	326,742 30	202,474 10	32,764 92	19,133 52	534,910 43	321,599 97
August	185,723 83	102,534 92	439,630 32	284,171 34	34,573 84	20,179 45	659,927 49	406,885 71
September	201,867 86	105,839 62	895,429 86	616,749 17	34,451 91	20,769 84	1,181,749 63	743,408 63
Totals	\$1,744,938 41	\$987,961 75	\$5,130,094 24	\$3,317,618 80	\$407,929 23	\$246,109 37	\$7,272,961 88	\$4,551,689 92

Earnings of Elevators in Milwaukee are not included in above statement.

Earnings during the Year Ending September 30, 1877. — con.

1. Earnings per mile of road in Wisconsin.....	\$6,844 65
2. Earnings per mile of road on freight in Wisconsin.....	4,988 90
3. Earnings per mile of road on passengers in Wisconsin.....	1,485 66
4. Earnings per train-mile run, on freight in Wisconsin ¹	1 80
5. Earnings per train-mile run, on passengers, in Wisconsin ²	1 45
6. Of the earnings of the entire line, what is the ratio of the passengers to the freight?.....	as 1 to 8
7. Average gross earnings per mile [665 miles] of road, exclusive of sidings (Wis.).....	6,844 65
8. Average net earnings per mile [665 miles] of road, exclusive of sidings (Wis.).....	2,807 45
9. Average net earnings per train-mile in Wisconsin.....	74

¹ To arrive at this result, the miles run by freight and mixed trains were used (page 6, question 8).

² To arrive at this result the miles run by passenger trains were used, (page 6, question 3).

EXPENSES DURING THE YEAR ENDING SEPTEMBER 30, 1877.**PAYMENTS FOR CURRENT AND OPERATING EXPENSES.**

	Belonging to Whole Line.	Belonging to Wisconsin.
1. Maintenance of way —		
Repairs of track, including new and re-rolled iron rail and steel rail in place of old iron rails.....	\$1,098,714 00	\$594,013 94
Repairs of bridges.....	101,747 62	46,854 90
Repairs of fences.....	19,855 32	16,220 34
New steel rail, valued only as iron rail ¹ (included in repairs of track).....		
Other expenses on way.....		
2. Maintenance of buildings.....	68,854 29	51,965 92
3. Maintenance of rolling stock —		
Locomotives.....	277,081 87	174,694 45
Passenger, baggage, mail and exp. cars } Freight cars.....	845,747 97	218,385 43
Shop tools and machinery.....	17,608 82	13,649 98
4. Conducting transportation, and general expenses —		
Management of general office.....	141,496 62	81,845 98
Foreign agency and advertising.....	44,795 16	28,168 48
Agents and station service.....	545,604 21	368,304 59
Conductors, baggage and brakemen.....	253,636 68	153,845 06
Engineers, firemen and wipers.....	334,300 32	208,970 98
Train and station supplies.....	107,336 98	71,741 00
Fuel consumed.....	489,891 12	293,473 94
Oil and waste.....	61,818 35	40,876 46
Personal expenses (incl. in other items).....		
Damage to persons.....	19,331 13	12,429 47
Damage to property.....	19,064 28	2,892 75
Loss and damage to freight and baggage.....	4,818 51	2,755 49
Legal expenses.....	31,613 34	19,563 20
Other general operating expenses.....	83,764 63	54,815 54

¹ In substituting steel rail for iron rail, the cost of iron rail only should be charged to operating account, and the excess carried to extraordinary expenses. (See next page.)

Expenses during the Year Ending September 30, 1877.— con.

	Belonging to Whole Line.	Belonging to Wisconsin.
5. Current expenses —		
For taxes	318,099 44	219,677 17
For insurance	20,660 25	12,098 51
Lease or privilege of other roads whose earnings are included in this report, giving name and amount paid		
6. Entire line, total current operating expenses, being 61 per cent. of earnings	\$4,445,791 01	
Wisconsin, total current operating expenses, being 59 per cent of earnings		\$2,684,737 42
7. Average operating expenses per mile of road, exclusive of sidings	\$3,175 57	\$4,037 20
8. Average operating expenses per train-mile	1 05	1 06
9. Excess of earnings over operating and current expenses	2,827,170 87	1,868,952 50
10. Cost of maintaining track and bridges per mile run	28	25
11. Cost of repairs of engines per mile run	07	07
12. Cost of engineers and firemen per mile run	08	08
13. Cost of oil and waste per mile run	01, ³ / ₄	01, ³ / ₄
14. Cost of fuel per mile run	12	12

Expenses, etc. — continued.

PAYMENTS IN ADDITION TO OPERATING EXPENSES.

	Belonging to whole line.	Belonging to Wisconsin.
15. New steel rail, excess of cost over iron rail, old track		
16. New rail on new track	None.	None.
17. New equipment	\$202,290 29	\$96,087 89
18. New bridges	284,241 22	129,378 79
19. Real estate bought	12,908 52	3,741 78
20. New tools and machinery (\$1895.82 in- cluded in equipment)		
21. New buildings	178,472 06	113,778 08
For other purposes	149,077 75	64,547 67
22. Total paid for new investment on the length of the company's line since date of last report	\$826,989 84	\$407,534 16
23. Amounts paid in cash, stock, bonds, or otherwise, for extensions, new lines and branches, during the past year — specify particularly	None.	None.
Total new investment	\$826,989 84	\$407,534 16
24. For interest on bonds	\$2,161,992 84	\$1,027,680 66
25. Dividends—rate $3\frac{1}{2}$ per cent.—on pre- ferred stock for year 1876	429,606 90	204,209 14
26. Dividends—rate — per cent. on com- mon stock		
27. Total payments in addition to operating expenses	\$2,591,599 74	\$1,231,889 80

28. What amount of money have you expended for building roads out
of the state from proceeds arising from business done on your roads
in this state?

None.

29. How was amount of dividends paid the past year — cash, stock or other-
wise? Specify amounts and manner of payment.

In cash.

Steel rail laid in Wisconsin during the year, 4,614 tons; Bay 49 miles.

GENERAL BALANCE SHEET, 1st OF OCTOBER, 1877.

(All lines owned by company in Illinois, Wisconsin, Iowa and Minnesota.)

ASSETS.	AMOUNT.	LIABILITIES.	AMOUNT.
Cost of road	\$56,631.466 19	Capital stock "preferred"	\$12,274.488 00
Western Union R. R. stock	1,000,750 00	Capital stock "common"	16,899,261 00
St. Paul, Stillwater and Taylor's Falls R. R. stock	15,000 00	Bonds outstanding	29,934,500 00
Madison and Portage R. R. bonds	130,771 13	Incumbrances assumed	18,935 00
Oshkosh and Mississippi River Railway bonds	208,000 00	Unpaid pay rolls and bills	419,390 67
Worthington and Sioux Falls R. R. bonds	9,000 00	Balance due other railway companies	40,253 78
City of Hastings bonds	7,700 00	Miscellaneous accounts	116,945 45
Stock of material on hand	259,762 95	Dividends unpaid	8,808 81
U. S. government post office deposits	46,289 64	Coupon account	25,478 43
Balance due from agents and other companies	392,635 96	Income account	1,470,149 57
Miscellaneous accounts	158,290 79	Total	\$39,728,205 20
Bills receivable	25,666 43		
Cash on hand	847,873 11		
Total	\$59,728,205 20		

1. What regulations govern your employees in regard to crossings of other railroads, and are they found to be sufficient?
All engines with or without trains are obliged to stop dead within 400 feet of all R. R. crossings, and not proceed until track is clear.
2. What regulations govern your employees in regard to crossings of public highways? And are these regulations found to be sufficient?
Whistling posts are set 80 rods each side of public highways, and all locomotives must blow whistle at these posts, and ring bell until highway is crossed.
3. What platform and coupler between passenger cars do you use?
Chicago, Milwaukee and St. Paul R'y. Miller.
4. What kind of brakes do you use on passenger trains?
Air brakes. Hand brakes.

U. S. MAIL.

5. What is the compensation paid you by the U. S. government for the transportation of its mails, and on what terms of service?

From	To	Rate per mile per annum.
Chicago.....	Milwaukee.....	\$250 00
Milwaukee.....	La Crosse.....	228 00
Watertown.....	Madison.....	50 00
Winona.....	Saint Paul.....	178 00
Milwaukee.....	Pririe du Chien...	125 00
Milton.....	Monroe.....	58 00
No. McGregor.....	Minneapolis.....	87 00
Conover.....	Decorah.....	55 00
Calmar.....	Algona.....	45 00
Austin.....	Mason City.....	50 00
Milwaukee.....	Berlin.....	72 00
Horicon.....	Portage.....	50 00
Nepeuskun.....	Winona.....	45 00
Winona.....	La Crescent.....	185 00
Hastings.....	Glencoe.....	82 00
Ripon.....	Oshkosh.....	50 00
Sabula.....	Marion.....	50 00

EXPRESS COMPANIES.

6. What express companies run on your road, and on what terms, and what conditions as to rates use of track, machinery, repairs of cars, etc.; what kind of business is done by them, and do you take their freights at the depot, or at the office of such express companies?

American Express Co. \$300 per day,	}	All lines operated by company.
United States Express Co. \$200 per day,		
Freights taken at depot.		

TRANSPORTATION COMPANIES.

7. What freight and transportation companies run on your road, and on what terms, and on what conditions as to rates, use of track, machinery, repairs of cars, etc.? Do they use the cars of your company, or those furnished by themselves, and are their cars or their freight given any preference in speed or order of transportation, and if so, in what particular?
- None.

SLEEPING CARS.

8. Do sleeping or dining cars run on your road and if so, on what terms are they run, by whom are they owned, and what charges are made in addition to the regular passenger rates?
- We have no dining cars, and use sleepers of the Chicago, Milwaukee and St. Paul Railway Company. Additional charges for accommodation in sleepers, between Chicago and Milwaukee and La Crosse and Prairie du Chien, \$1.50; between Chicago and Milwaukee and St. Paul and Minneapolis, \$2.00.

ADDITIONAL QUESTIONS.

9. Have you acquired any additional chartered rights or privileges under the special or general laws of this state, directly or indirectly, since your last report?
- No.
10. Have you acquired any such additional rights or privileges under the laws, general or special, of any other state, since your last report?
- No.
11. Have you acquired any lines in or out of this State, by purchase, lease, consolidation or otherwise, since your last report? If yes, give full particulars relating thereto, including length of line, location thereof, at what point or place connection is made with old line; terms of purchase or lease, and brief statement of reasons for making such purchase or lease, and whether made by consent of stockholders?
- No.
12. Do you, by purchase or ownership of capital stock, or in any other manner, control any other railroad corporation owning or having under its control a parallel or competing line?
- No.
13. Does any officer of your company act as the officer of any other railroad corporation, owning or having the control of a parallel or competing line?
- No.
14. What running arrangements have you with other railroad companies, setting forth the contracts for the same, made since the date of your last report?
- None.
15. Have you such arrangements with other railroad companies crossing or connecting with your lines as enable passengers to make class connections with trains on such lines, at all such crossing or connecting points? If so, when were such arrangements made? If not at all such points, state at what points such connections are not made, and the reasons therefor?
- It has always been our aim to make connection with all roads which we cross, and we have done so whenever it was practicable. The connections between our trains and those of other roads, during the past two

- years, have been more perfect than ever before. A few unimportant connections are never made, for the reason that it is not possible to make them.
16. Have any swamp or other State lands been granted your Company since the date of your last report? If so, how many acres?
No.
17. Have any United States lands been granted to your Company, directly or indirectly, since the date of your last report? What number acres received by your Company, directly or indirectly, since date of last report?
No.
18. What number acres sold and conveyed since date of your last report?
None.
19. Average price, per acre, realized?
20. To what corporations have you sold land? How much, and what price, since the date of your last report?
None.
21. Number of acres now held by Company?
None.
22. Average price asked for lands now held by Company?
23. Value of donations of right of way or other real estate received since the date of your last report?
24. Amount of city, county and town aid granted to Company in exchange for stock, or otherwise? Specify particulars since date of last report?
None.
25. Total cash amount realized from such aid since date of your last report?
Nothing.
26. Amount of land sold, but not conveyed, under contracts now in force?
None.
27. The whole amount of cash, principal and interest, received for lands hitherto sold and conveyed, since date of last report? None.
28. Whole amount of cash received, principal and interest, on outstanding contracts in force, since date of last report? None.
29. Whole amount of cash received, principal and interest, on contracts forfeited, since date of last report? None.
30. Whole amount of cash received for stumpage, trespasses, etc., since date of last report? None.
31. What have been your total receipts from lands sold, and contracted to be sold, since the date of last report? None.
32. What is the aggregate sum of receipts on account of lands, from all sources whatever, up to present time? None.
33. What is the amount now due the Company on lands sold, or contracted to be sold? None.
34. Are there any terminal points on places, on your lines in, or out, of this State, to and from which the larger portion of the freight transported on your line is carried? If so, name them.
Chicago, Milwaukee, La Crosse, St. Paul, Minneapolis and Prairie du Chien.
35. Have you made any advance in the rates of freight, from stations on your lines, to such terminal points since the enactment of chapter 57 of the laws of 1876?
No change in rates between Wisconsin State terminals.
36. Have you made any reductions in such rates, from any stations, since the passage of said chapter?
Same as answer to 35.
If you answer either of the questions in the affirmative, annex to your reply schedules, naming the stations, with distance and rates in force at the time, and since the passage of said chapter, on 1st, 2d, 3d and 4th class of freight, and upon flour, grain, live stock, agricultural implements, salt, and coal.
37. *Have you made such advance or reduction on your rates of freight between other stations on your line? If yes, annex schedule to your re-

* The "distance tariff," with both rates noted thereon, will be a sufficient answer.

ply, showing what the advance or reduction has been on the articles above named.

Have made no change.

38. What is your present tariff per mile for passengers, both through and local?

Four cents per mile both through and local, except where shorter lines reduce our rates, and except for passengers buying round trip tickets.

39. What proportion of the passengers carried by you, in this State, purchase round trip tickets? And what proportion purchase 500-mile tickets? Ticket sales at Wisconsin Stations to points in the State during the year were:

Local	153,883
Round-trip	138,953
500-mile	1,863

40. Have you made any advance in the rates of freight for lumber, since the passage of chapter 57, of the laws of 1876? If so, annex to your reply a schedule, naming the stations and rates in force both at the time and since the passage of said chapter.

Yes; but the schedule of such rates furnished with report for 1876, is still in force.

41. Has your Company any rule governing your conductors, engineers and trainmen concerning the use of intoxicating liquors? If so, what is it, and is it enforced?

It is a rule of the road not to employ or retain in service men who make an immoderate use of intoxicating liquors, and this rule is enforced.

ACCIDENTS.

STATEMENT OF EACH ACCIDENT.*				PASSENGERS.			EMPLOYEES.			OTHERS.			Damages Claimed.	Damages Paid.
No. of Accidents.	Name.	Place of Accident.	Date.	From causes beyond their control.			By their own misconduct or want of caution.			From causes beyond their control.			Killed.	Exp. p'd
				Killed.	Injured.	By their own misconduct or want of caution.	Killed.	Injured.	By their own misconduct or want of caution.	Killed.	Injured.	By their own misconduct or want of caution.		
1	Chas. Hill.....	Milwaukee.....	Oct. 6, 1876	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Ex. p'd
2	Henry Griffin.....	Rolling Prairie.....	Oct. 9, 1876	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Ex. p'd
3	E. Deglyer.....	Waupun.....	Oct. 11, 1876	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Ex. p'd
4	C. D. Merrill.....	Milwaukee.....	Oct. 12, 1876	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Ex. p'd
5	A. Dithmer.....	Portage.....	Oct. 25, 1876	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Ex. p'd
6	O. L. Hunkins.....	Columbus.....	Oct. 28, 1876	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Ex. p'd
7	J. A. Delent.....	Fox Lak. Jun.....	Oct. 28, 1876	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Ex. p'd
8	B. Grogan.....	Brookfield.....	Oct. 31, 1876	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Ex. p'd
9	J. M. Robinson.....	Bradon.....	Nov. 9, 1876	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Ex. p'd
10	P. Farmer.....	Madison.....	Nov. 10, 1876	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Ex. p'd
11	A. L. Drake.....	Nashotah.....	Nov. 24, 1876	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Ex. p'd
12	Jno. Wilson.....	La Crosse.....	Nov. 24, 1876	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Ex. p'd
13	Frank Gross.....	Milwaukee.....	Nov. 28, 1876	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Ex. p'd
14	Wm. Hill.....	Marshall.....	Nov. 30, 1876	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Ex. p'd
15	Jno. Felsen.....	Milwaukee.....	Dec. 5, 1876	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Ex. p'd

* Give name of person, date and place of accident.

Accidents — continued.

Number of accidents.	STATEMENT OF EACH ACCIDENT.				PASSENGERS.				EMPLOYEES.				OTHERS.				Damages claimed.	Damages paid.
	Name.	Place of accident.	Date.		Killed.	Injured.	By their own misconduct or want of caution.		Killed.	Injured.	From causes beyond their control.	Killed.	Injured.	By their own misconduct or want of caution.				
				* Give name of person, date and place of accident.														
16	C. Johnson.....	Milwaukee....	Dec. 17, 1876														Exp's.	Paid.
17	Edw. Gowers.....	Milwaukee....	Dec. 16, 1876															
18	W. D. Steese.....	Horicon.....	Dec. 18, 1876							1								
19	Thos. Waite.....	Franksville...	Jan'y 4, 1877															
20	C. Caler.....	La Crosse.....	Jan'y 29, 1877														Ex. p'd	\$205 00
21	John Dimon.....	Milwaukee....	Feb. 4, 1877															\$600 00
22	Wm. Luther.....	Watertown...	Oct. 27, 1876							1								100 00
23	C. O. Shaughnessey	La Crosse.....	Jan'y 29, 1877															
24	D. Stanton.....	Milton Junction	Feb. 24, 1877					1									Exp. p'd.	45 00
25	W. H. Deming.....	Oconomowoc...	M'ch 9, 1877							1							Exp's.	Paid.
26	Wm. Wood.....	Milwaukee....	M'ch 29, 1877														Exp's.	Paid.
27	I. Schlitz & Son...	Truesdell.....	April 7, 1877															
28	Wm. Miller.....	Rio.....	April 13, 1877														1	
29	F. Telgett.....	Harford.....	April 14, 1877														Ex. p'd.	160 00
30	B. McGliny.....	La Crosse.....	April 26, 1877															

1. Of the above accidents, those numbered as follows were caused by broken rails.
Total No.
2. Of the above accidents those numbered as follows were caused by inattention of employees:
Total No. Can not state.
3. Of the above accidents those numbered as follows were caused by collisions not properly coming under 2:
Total No. None.
4. Of the above accidents those numbered as follows were caused by explosions:
Total No. None.
5. Amount paid as damages caused by fire from locomotives; (in Wisconsin, \$320.00.),

NUMBER AND KIND OF FARM-ANIMALS KILLED, AND AMOUNT OF DAMAGES PAID THEREFOR.

	Number Killed.	Amount Paid.
1. Cattle	54	801 00
2. Horses	12	622 50
3. Mules	1	100 00
4. Sheep	34	62 25
5. Hogs	6	38 50
6. Total	107	\$1,624 25

7. Amount claimed yet unsettled, or in litigation.

REMARKS.

The statement of accidents, as shown on page 16 of this report, is full and complete, comprising all accidents on the company's lines in the state of Wisconsin, that have been reported for the year ending September 30th, 1877. A very large proportion of the injuries to persons were of the most trivial nature.

STATE OF WISCONSIN, } ss.
County of Milwaukee, }

S. S. Merrill, General Manager, and R. D. Jennings, Secretary and Treasurer of the Chicago, Milwaukee & St. Paul Railway Company, being duly sworn, depose and say that they have caused the foregoing statements to be prepared by the proper officers and agents of this company, and having carefully examined the same, declare them to be a true, full and correct statement of the condition and affairs of said company, on the first day of October, A. D. 1877, to the best of their knowledge and belief.

Signed.
S. S. MERRILL.
General Manager.
R. D. JENNINGS,
Secretary and Treasurer.

[SEAL.]

Subscribed and sworn to before me, a notary public, this twenty second day of November, A. D. 1877.

MELBERT B. CARY,
Milwaukee, Wis.

[SEAL.]

REPORT
OF THE
CHICAGO AND NORTHWESTERN RAILWAY COMPANY,
For the year ending 30th September, 1877.

OFFICERS AND OFFICES OF THE COMPANY OPERATING.

NAMES.	OFFICE.	ADDRESS.	SAL' RES.
Albert Keep.....	President.....	Chicago .....	.....
M. L. Sykes, Jr.	1st Vice-President	New York.....	.....
M. L. Sykes, Jr.	Secretary.....	do.....	.....
B. C. Cook	Solicitor	Chicago .....	.....
M. L. Sykes, Jr.	Treasurer	New York.....	.....
Marvin Hughitt	General Manager	Chicago .....	.....
Marvin Hughitt	General Superintendent	do.....	.....
E. H. Johnson.....	Chief Engineer.....	do.....	.....
W. A. Thrall	General Ticket Agent.....	do.....	.....
H. C. Wicker.....	General Freight Agent.....	do.....	.....
J. B. Redfield.....	Auditor	do.....	.....
Total salaries.....	.....	.....	.....

1. General offices at 56 Kinzie St., Chicago, Ill.

NAMES OF DIRECTORS	RESIDENCE.	NAMES OF DIRECTORS	RESIDENCE.
Harvey Kennedy....	New York.	R. P. Flower	New York.
S. M. Mills	New York.	M. L. Sykes, Jr.	New York.
W. L. Scott.....	Erie.	Henry H. Porter. . .	Chicago.
John Bloodgood....	New York.	Albert Keep.....	Chicago.
Jay Gould.....	New York.	David Dows.....	New York.
J. L. Ten Have	Amsterdam, H'l.	Sidney Dillon . . .	New York.
A. G. Dulman	New York.	James H. Howe....	Kenosha.
Wm. H. Ferry	Chicago.	Marvin Hughitt ...	Chicago.
		J. M. Burke	New York

EXECUTIVE COMMITTEE.

Albert Keep,
David Dows,
W. L. Scott.

H. H. Porter,
A. G. Dulman,

M. L. Sykes, Jr.,
Jno. M. Burke,

2. Date of annual election of directors, first Thursday in June.
3. Name and address of person to whom correspondence, concerning this report, should be directed, B. C. Cook, Solicitor.

CAPITAL STOCK.

1. Capital stock authorized by charter. The authorized capital stock of this company is not a fixed amount, being contingent upon the amount of convertible bonds surrendered, and the amount of the stocks of other companies which may be presented for conversion in accordance with the terms of various consolidations.
2. Amount of common stock and scrip..... \$15,104,145 97
3. Amount of preferred stock and scrip 21,697,334 56
4. Total capital stock..... \$36,801,480 53
5. *Proportion of stock for Wisconsin..... \$15,258,718 65
6. Rate of preference, seven per cent.
7. How much common stock has been issued since Sept. 30, 1876. \$5,720.
8. For what purpose? and what was received therefor? Issued for and received the stock of companies consolidated with this—which stock was yet outstanding Sept. 30, 1876, but entitled to exchange by terms of consolidations.
9. How much preferred stock has been issued, since September. 30, 1876, \$107,655.57.
10. For what purpose? and what was received therefor? Issued for and received the stock of companies consolidated with this—which stock was yet outstanding September 30, 1876, but entitled to exchange by terms of consolidation.

FUNDED AND UNFUNDED DEBT.

1. Describe severally all outstanding classes of bonds, including amounts, dates of issue, interest, where and when payable.
(See descriptive list, p. 63).
2. Amount of debt not secured by mortgage?
This company has no unsecured debt excepting the bills for supplies and wages for the current month.
3. Total funded and unfunded debt..... \$32,956,500 00
4. Net cash realized from bonded debt, above described.
The bonded debt of this company is largely composed of bonds issued by other companies now consolidated with this company, and all records of the net cash realized therefor were destroyed by the fire of Oct. 9, 1871.
5. Proportion of debt, bonded and floating, for Wisconsin... \$14,140,850 10

* Unless some good reason exists to the contrary, this proportion—and all other estimates of the same character—should be for the miles of road in this state compared with the whole. If made on a different basis please state the reasons therefore.

BONDED DEBT OF THE C. & N. W. RY CO., SEPTEMBER 30, 1877.

NAMES OF BONDS.	7 per cent. Currency.	6 per ct. Currency.	10 per ct. Currency.	7 per cent. Gold.	Total.	Date of Maturity.	Interest payable.
Preferred sinking fund.....	\$1,215,500	.....	.....	.....	\$1,215,500	Aug. 1, 1885	Feb. 1 & Aug. 1
Appleton extension	189,000	.....	.....	.....	189,000	Aug. 1, 1885	Feb. 1 & Aug. 1
Green Bay extension	246,000	.....	.....	.....	246,000	Aug. 1, 1885	Feb. 1 & Aug. 1
Funded coupon.....	728,800	.....	.....	.....	728,800	Nov. 1, 1888	May 1 & Nov. 1
General 1st mortgage.....	8,588,200	.....	.....	.....	8,588,200	Aug. 1, 1885	Feb. 1 & Aug. 1
G. & C. U. R. R. 1st mortgage.....	1,677,000	.....	.....	.....	1,677,000	Feb. 1, 1882	Feb. 1 & Aug. 1
G. & C. U. R. R. 2d mortgage.....	2,000	.....	.....	.....	2,000	Past due	
Elgin & State Line R. R. ....	.....	\$119,000	.....	.....	119,000	July 1, 1878	Jan. 1 & July 1
Mississippi River Bridge.....	181,000	.....	.....	.....	181,000	Jan. 1, 1894	Jan. 1 & July 1
Consolidated sinking fund.....	4,500,000	.....	.....	.....	4,500,000	Feb. 1, 1915	{ Feb. 1 & May 1 Aug. 1 & Nov. 1
Peninsula R. R. of Mich., 1st mortgage	283,000	.....	.....	.....	283,000	Sept. 1, 1898	Mch. 1 & Sept. 1
Chicago & Milwaukee Ry, 1st mort.	1,700,000	.....	.....	.....	1,700,000	July 1, 1898	Jan. 1 & July 1
Beloit & Madison R. R., 1st mortgage.	271,000	.....	.....	.....	271,000	Jan. 1, 1888	Jan. 1 & July 1
La C., T. & Prescott R. R., 1st mort.	.....	.....	\$683,000	.....	683,000	April 1, 1878	Apr. 1 & Oct. 1
Madison extension, 1st mortgage, gold.	.....	.....	.....	\$3,150,000	8,150,000	April 1, 1911	Apr. 1 & Oct. 1
Menominee extension, 1st mort., gold.	.....	.....	.....	2,700,000	2,700,000	June 1, 1911	June 1 & Dec. 1
General consolidated, gold .....	.....	.....	.....	11,823,500	11,823,500	Dec. 1, 1903	June 1 & Dec. 1
Total.....	\$14,481,000	\$119,000	\$683,000	\$17,673,500	\$32,956,500		

COST OF ROAD AND EQUIPMENT.

STATEMENT of Expenditures charged to cost of Road and Equipment from September 30, 1876, to September 30, 1877.

Debt of La Crosse, Trempealeau & Prescott R. R. Co., assumed by consolidation.....	\$1,450,456 05
Improvement or alteration of the road.....	434,782 71
Construction of buildings.....	30,711 09
Construction of fences, gates and crossings	6,201 98
Cost of new shops, West Chicago	828 63
Cost of Milwaukee ave. viaduct, Chicago.....	34,878 43
Construction of permanent bridges (cost of new over old)....	15,723 40
New equipment.....	93,511 77
Total.....	\$2,067,093 96
Total cost of line, as per last report, includ'g equipment.	68,504,514 23
Total cost of line to date, including equipment.....	<u>\$70,571,608 24</u>

ORIGINAL COST AND PRESENT ESTIMATED VALUE OF TOTAL PROPERTY IN THIS STATE.*

* See page 2 for expenditures during the year, and for total cost of road and equipment, which items furnish the only means of estimating the present value.

CHARACTERISTICS OF ROAD.

	Entire Length.	Length in Wisconsin
Chicago to east end Miss. R. R. bridge	137 00	.....
Chicago to Freeport	121.00	.....
(Above includes 30 miles second track.)		
Elgin to Geneva Lake	44.50	8.70
Batavia to St. Charles	5.60	.....
East end Miss. bridge to Clinton	1.10	.....
Clinton to Cedar Rapids	81.30	.....
Cedar Rapids to Missouri River	271.60	.....
Clinton to Lyons	2.60	.....
Stanwood to Tipton	8.50	.....
Belvidere to Madison	68.90	48.80
Madison to Elroy	74.20	74.20
Elroy to Winona Junction	54.90	54.90
Winona Junction to Winona	29.00	29.00
Chicago to Milwaukee	85.00	40.00
Kenosha to Rockford	72.10	27.50
Chicago to Ft. Howard	242.20	171.40
Ft. Howard to Michigan State line	49.45	49.45
Chicago to Montrose	5.20	.....
Chicago South Branch Junction to River	4.50	.....
Michigan State line to Escanaba	64.65	.....
Escanaba to Lake Angeline	68.00	.....
Branches to Mines	39.80	.....
<i>Total Chicago & Northwestern R'y.</i>	1,581.10	508.95
PROPRIETARY ROADS.		
<i>Winona & St. Peter R. R.</i>		
Winona to Lake Kampeska	327.00	
<i>Winona, Mankato & New Ulm R. R.</i>		
Mankato Junction to Mankato	3.75	
<i>Iowa Midland R'y.</i>		
Lyons to Anamosa	68.80	
<i>Northwestern Union R'y.</i>		
Milwaukee to Fond du Lac	62.63	62.63
<i>Total No. of miles operated.</i>	463.18	
	1,993.28	
<i>In Wisconsin.</i>		566.58

8. Aggregate length of tracks operated by this company *computed as single track* included in this report, 1,581.10.

9. Aggregate length of sidings and other track not above enumerated, 291.47.

10. Number of junction stations, 37.

11. What is the gauge of your line? 4 feet, 8½ inches.

DOINGS OF THE YEAR IN TRANSPORTATION.

CHARACTER OF SERVICE.	No. of Per's em- ployed.	Av. Salary per An- num.
1. Division and assistant superintendents	6	\$2,933.80
Clerks in all offices.....	540	600.00
Master and assistant mechanics.....	5	2,160.00
Conductors	215	840.00
Engineers	357	1,000.00
Brakemen	423	540.00
Flagmen, switch-tenders, gate-keepers and watchmen, included below in "other employees."		
Station agents	275	600.00
Section men, laborers and other employees.....	6,000	325.00
Total on 1531 $\frac{1}{10}$ miles	7,821	

MILEAGE AND TONNAGE.	MILES.	
	Whole Line.	In Wisc'nain
2. No. of miles run by passenger trains.....	2,424,817	830,412
3. No. of miles run by freight and mixed trains	6,659,782	2,246,040
4. No. of miles run by constr'n and other trains	890,500	91,642
5. Total mileage	9,975,099	3,168,094
6. Total No. of passengers carried	2,896,692	.....
7. Total No. tons freight carried one mile	480,502,478	108,375,385
8. Total No. passengers carried one mile.....	108,327,127	19,928,377

9. Average distance traveled by each passenger 35.67-100 miles.
 11. Schedule rates of express passenger trains, including stops, 30 $\frac{1}{2}$ miles per hour.
 13. Schedule of mail and accommodation trains, including stops, 20 miles per hour.
 15. Schedule rates of freight trains, including stops, 15 miles per hour.
 16. Amount of freight carried per car, 10 tons.
 17. Total freight in tons,* whole line, 3,446,526; in Wisconsin, 1,104,165.

* No record kept showing classification of commodities.

EARNINGS DURING THE YEAR ENDING SEPTEMBER 30, 1877.

MONTHLY EARNINGS FROM ALL SOURCES.

STATEMENT of Earnings of the Chicago and Northwestern Railway Co., for the twelve months ending September 30, 1877.
1531.1½ miles.

MONTH.	Passenger.	Freight.	Express.	Mai.	Miscellaneous.	Total.
1876						
October	\$818,894 56	\$1,043,152 85	\$20,202 91	\$23,320 55	\$3,922 43	\$1,408,992 79
November	239,855 01	827,659 51	21,190 81	23,320 55	5,323 16	1,117,849 04
December	202,898 50	658,479 14	20,802 17	23,320 55	4,145 22	909,640 58
1877						
January	184,642 74	488,098 95	20,595 75	23,326 44	4,859 67	721,028 55
February	185,723 93	483,396 41	18,350 08	23,314 66	3,325 19	714,116 25
March	222,952 32	532,432 21	20,592 90	23,327 90	5,251 47	904,556 20
April	242,927 40	569,677 58	19,203 47	23,314 66	3,771 41	858,894 52
May	234,689 88	643,031 42	20,744 27	24,104 21	7,445 19	930,014 47
June	235,833 04	645,235 77	20,396 84	21,796 68	3,881 41	927,143 22
July	259,894 73	627,586 08	20,622 88	21,883 72	5,001 03	934,887 94
August	267,759 92	826,443 82	21,331 70	21,890 47	3,884 17	1,141,310 08
September	300,327 84	1,209,326 68	20,495 89	21,890 47	7,327 83	1,559,387 71
Total	\$2,890,898 87	\$8,554,519 92	\$244,434 15	\$274,810 24	\$57,638 17	\$12,022,296 35

Earnings during the year — continued.

STATEMENT of earnings of the Chicago and North Western Railway Company in the state of Wisconsin for the twelve months ending September 30, 1877.

MONTH.	Passenger.	Freight.	Express.	Mail.	Miscellaneous.	Total.
1876.						
October	\$76,508 29	\$223,848 75	\$5,599 36	\$6,278 45	\$441 27	\$312,671 13
November.....	58,023 36	203,236 45	5,599 36	6,278 45	518 45	273,651 07
December	48,816 41	154,852 44	5,599 36	6,278 45	713 22	216,254 83
1877.						
January	39,581 30	119,020 99	5,599 36	6,278 45	458 53	170,938 63
February.....	42,426 33	109,440 15	5,599 36	6,278 45	619 03	164,358 33
March	50,491 48	192,178 54	5,599 36	6,278 45	395 52	184,938 35
April.....	55,619 14	99,620 15	5,599 36	6,278 45	389 88	167,501 98
May	52,091 14	125,603 63	5,599 36	6,278 45	802 36	190,369 94
June	57,504 87	134,424 29	5,656 62	6,604 18	396 13	204,556 09
July	61,841 73	108,193 55	5,647 25	6,704 85	440 57	192,827 95
August	66,808 51	149,183 20	5,695 93	6,704 85	428 52	228,820 40
September.....	71,800 93	296,250 95	5,688 92	6,704 85	441 54	380,887 19
Total.....	\$681,513 49	\$1,845,853 09	\$67,482 99	\$76,906 33	\$6,045 02	\$2,677,800 93

1. Earnings per mile of road	\$7,852 06
2. Earnings per mile of road on freight	5,587 17
3. Earnings per mile of road on passengers	1,888 12
4. Earnings per train-mile run, on freight	1 28
5. Earnings per train-mile run, on passengers	1 19
6. Of the earnings of the entire line, what is the ratio of the passenger to the freight?	as 1 to 2.9591
7. Average gross earnings per mile [1531.10 miles] of road, exclusive of sidings	\$7,852 06
8. Average net earnings per mile [1531.10 miles] of road, exclusive of sidings	8,699 54
9. Average net earnings per train-mile	62 85

EXPENSES DURING THE YEAR ENDING SEPTEMBER 30, 1877.

OPERATING EXPENSES.

TWELVE MONTHS ENDING SEPTEMBER 30, 1877.

Repairs of engines and tenders	\$439,056 96
Repairs of cars	447,284 21
Repairs of buildings	99,657 73
Repairs of fences, gates and crossings	55,418 46
Repairs of bridges and culverts	176,889 74
Repairs of track	1,224,282 64
Repairs of tools and machinery	81,846 18
Fuel used by locomotives	699,096 19
Fuel and lights used in cars and at stations	93,579 14
Oil and waste used	75,812 12
Office and station furniture and expenses	44,704 79
Furniture and fixtures for cars	15,787 17
Foreign agents	52,452 08
Advertising	23,780 81
Stationery, printed blanks, tickets, etc.	88,582 21
Engine-men, firemen and wipers	620,045 60
Conductors, baggagemen and brakemen	389,869 49
Laborers and switchmen at stations	594,795 69
Agents and clerks at stations	588,884 60
Superintendence	84,570 24
Rents	18,852 68
Loss and damage	30,108 66
Injury to persons	59,649 81
Teaming, freight, baggage and mails	6,584 44
Insurance	
Miscellaneous expenses	52,278 10
Car hire paid over amount received	85,187 08
Total	\$6,043,446 22
Add for taxes	814,479 85
Total	\$6,857,926 07

PAYMENTS FOR CURRENT AND OPERATING EXPENSES.

1. Maintenance of way:		
Repairs of track, including new and re-		
rolled iron	\$1,224,232 84	.....
Repairs of bridges and culverts	176,889 74	.....
Repairs of fences, gates and crossings.....	55,413 46	.....
	<u>1,456,535 84</u>	
2. Maintenance of buildings.....		99,657 78
3. Maintenance of rolling-stock:		
Locomotives and tenders.....	\$439,056 96	.....
Passenger, baggage, mail, express and		
freight cars, and car hire.....	482,471 24	.....
Shop tools and machinery.....	81,346 13	.....
	<u>1,002,874 33</u>	
4. Conducting transportation, and gen. expenses:		
Management and general office.....	\$84,570 24	.....
Foreign agency and advertising	76,232 89	.....
Agents and station service.....	1,185,264 73	.....
Conductors, baggage and brakemen.....	889,869 49	.....
Engineers, firemen and wipers.....	620,045 60	.....
Train and station supplies.....	99,024 17	.....
Fuel consumed.....	792,675 33	.....
Oil and waste	75,812 12	.....
Damage to persons.....	59,649 31	.....
Damage to property, loss and damage to		
freight and baggage.....	30,103 66	.....
Legal expenses, miscellaneous expenses		
and rents.....	71,130 78	.....
	<u>3,484,378 33</u>	
5. Current expenses:		
For taxes		314,479 85
Lease or privilege of other roads whose		
earnings are included in this report, giv-		
ing name and amounts paid —		
Chicago, Iowa & Nebraska	\$483,307 83	.....
Cedar Rapids and Missouri River....	616,300 02	.....
	<u>1,099,607 85</u>	
6. Total current operating expenses and taxes,		
being 52.88 per cent. of earnings.....	\$6,357,926 07	
7. Average operating expenses per mile of road, exclusive of		
sidings.....	\$4,152 53	
8. Average operating expenses per train-mile.....	69.98 cents.	
9. Excess of earnings over operating and current expenses		
and taxes	\$5,664,370 28	
10. Cost of maintaining track and bridges per mile run.....	15.42 cents.	
11. Cost of repairs of engines per mile run.....	4.83 cents.	
12. Cost of engineers and firemen per mile run.....	6.82 cents.	
13. Cost of oil and waste per mile run.....	0.884 cents.	
14. Cost of fuel per mile run	7.69 cents.	

PAYMENTS IN ADDITION TO OPERATING EXPENSES.

15. New steel rail, excess of cost over iron rail, old track. }	
16. New rail on new track and new side track..... }	\$249,518 31
17. New equipment.....	93,511 77
18. New bridges and culverts (not including replacements.) ..	15,722 40
19. Real estate bought during the year. Right of way and depot grounds.....	29,013 95
20. New tools and machinery	
21. New buildings	80,711 99
22. Total paid for new investment on the length of the company's lines since date of last report	91,511 73
23. Amounts paid in cash, stock, bonds, or otherwise, for extensions, new lines and branches, during the past year — specify particularly.	
This company has during the past year assumed by consolidation, the debt of the La Crosse, Trempealeau & Prescott R. R. Co., amounting to.....	
Total new investment.....	\$1,450,456 05
24. For interest, premium and sinking funds on bonds including interest and exchange.....	2,386,486 89
25. Dividends — rate $2\frac{1}{2}$ per cent. — on preferred stock.....	586,810 00
26. Dividends — rate, per cent. — on common stock	
Total payments in addition to operating expenses	

28. What amount of money have you expended for building roads out of the state, from proceeds arising from business done on your roads in this state?

Nothing.

29. How was amount of dividends paid the past year — cash, stock, or otherwise? Specify amounts and manner of payment.

Cash — $2\frac{1}{2}$ per cent. on preferred stock, \$586,810.00.

GENERAL BALANCE SHEET, 1st OF OCTOBER, 1877.

ASSETS.		LIABILITIES.	
	AMOUNT.		AMOUNT.
Cost of road	\$63,437,651 98	Capital st. ck.	\$36,801,480 53
Cost of equipment	8,138,956 26	Funded debt.	82,956,500 00
Land grant account	14,908 87	Income account.	5,517,280 09
Proprietary railroads	2,420,690 50	Total	\$75,275,260 62
Material and fuel on hand.	977,903 29		
Amount of excess of sundry assets over current bills	1,290,149 73		
Total	\$75,275,260 62		

1. What regulations govern your employees in regard to crossings of other railroads, and are they found to be sufficient?
Employee are instructed to bring trains to a full stop before crossing the track of another company.
These regulations are found to be entirely sufficient.
2. What regulations govern your employees in regard to crossings of public highways? And are these regulations found to be sufficient?
Engineers are required to sound whistle at signal posts, which are 80 rods before highway crossings, and to ring the bell.
Which regulations are found to be sufficient.
3. What platform and coupler between passenger cars do you use?
The Miller platform and coupler.
4. What kind of brakes do you use on passenger trains?
The Westinghouse Air Brakes.

U. S. MAIL.

5. What is the compensation paid you by the U. S. government for the transportation of its mails, and on what terms of service?

United States Mail Contracts, in force June 30, 1877.

No. of Route.	Termini.	Miles	Rate per mile per annum.	Amount per annum.
25,009	Chicago to Green Bay	245.00	\$280 00	\$56,850 00
24,081	Ft. Howard to Ishpeming...	181.20	90 00	16,308 00
23,002	Chicago to Freeport.	121.00	208 00	25,168 00
23,003	Chicago to U. P. Transfer. . .	491.00	268 00	131,588 00
24,013	Sanwood to Tipton.....	8.81	50 00	440 50
23,001	Chicago to Milwaukee.....	87.00	232 00	20,184 00
25,011	Kenosha to Rockford.....	73.60	75 00	5,520 00
23,056	Geneva to Batavia	3.50	50 00	175 00
23,004	Elgin to Geneva Lake	44.00	50 00	2,200 00
25,010	Caledonia to Elroy	135.45	132 00	21,722 40
25,010	Elroy to Winona Junction ...	54.90	70 00	
25,012	Winona to Winona Junction .	30.45	195 00	5,937 75

NOTE—The above are rates fixed by contracts of July 1, 1875 (for five years). The department has, however, recently made deductions from these rates, claiming such right under act of July 14, 1876.

EXPRESS COMPANIES.

6. What express companies run on your road, and on what terms, and what conditions as to rates, use of track, machinery, repairs of cars, etc.; what kind of business is done by them, and do you take their freights at the depot, or at the office of such express companies?
American Express Co. and United States Express Co.
Our terms and conditions as to rates, see full statement attached.
Express companies have no care of the machinery or repairs of cars, etc. They do a miscellaneous business, restricted to lighter articles properly belonging to express business. The express companies deliver their freight into this company's care.

EXPRESS CONTRACTS IN FORCE JUNE 30th, 1877.

AMERICAN EXPRESS CO.

	Rate per diem on limited ton- nage.	Limit of pounds	Rate per 100 lbs whole length of route on ex- cess of tonnage.
Chicago to Council Bluffs	\$275 00	10,000	\$1 50
Chicago to Freeport	90 00	12,000	75
Chicago to Ishpeming	200 00	8,000	2 00
Chicago to Elroy	135 00	10,000	1 35
Stanwood to Hipton	2 00	500	.....
Ken sha to Rockford	5 07	1,000	60
Elgin to Geneva Lake	5 00	1,000	36

Elroy to Winona, in accordance with tariff of rates to be paid between stations.

UNITED STATES EXPRESS CO.

Chicago to Milwaukee, rate per diem on limited tonnage, \$66.66.

Limit of pounds to be carried each day at regular per diem rates, 17,000.

Rate per 100 pounds carried whole length of route, to be paid on excess of tonnage, 40 cents.

TRANSPORTATION COMPANIES.

7. What freight and transportation companies run on your road, and on what terms, and on what conditions as to rates, use of track, machinery repairs of cars, etc. Do they use the cars of your company, or those furnished by themselves, and are their cars or their freight given any preference in speed or order of transportation, and if so, in what particular?
- All transportation companies are allowed to run over the lines of this Company, paying regular rates of freight and receiving mileage on their cars.
- The freight is carried in cars furnished by such transportation companies (excepting consignments of less than a car load).
- Their freight has no preference over other freights of like class.

SLEEPING CARS.

8. Do sleeping or dining cars run on your road, and if so, on what terms are they run, by whom are they owned, and what charges are made in addition to the regular passenger rates?
- The Pullman Palace Cars are run with passenger trains.
- The railway company hauls them, furnishes fuel and lights, and keeps in running order the trucks and whole exterior of the cars.
- The Pullman Palace Car Co. furnishes and provides for the care and management of the interior.
- They are owned by the Pullman Palace Car Co. The charges in addition to the regular passenger rates are made and collected by the owners, and are (on Wisconsin lines) \$1.50 per berth.

ADDITIONAL QUESTIONS.

9. Have you acquired any additional chartered rights or privileges under the special or general laws of this state, directly or indirectly, since your last report?

This company has acquired no additional chartered rights or privileges under any laws of the state of Wisconsin since last report.

10. Have you acquired any such additional rights or privileges under the laws, general or special, of any other state, since your last report?

This company has acquired no additional chartered right or privileges under the laws of any state since last report.

11. Have you acquired any lines in or out of this state, by purchase, lease, consolidation or otherwise, since your last report? If yes, give full particular relating thereto, including length of line, location thereof, at what point or place connection is made with old line; terms of purchase or lease, and brief statement of reasons for making such purchase, or lease, and whether made by consent of stockholders? Since last report this company has acquired, by consolidation, the La Crosse, Trempealeau & Prescott Railroad, being about 29 miles of road, in the state of Wisconsin, connecting with the old line at Winona Junction.

The terms of such consolidation are an agreement to issue one share of the preferred stock of the consolidated company for one share of the stock of the La Crosse, Trempealeau & Prescott R. R. Co., and to recognize and observe all existing obligations of that company.

The reason for consolidation being chiefly to insure greater economy in operation.

The consolidation was made with the consent of the stockholders.

12. Do you, by purchase or ownership of capital stock, or in any other manner, control any other railroad corporation owning or having under its control a parallel or competing line?

This company neither owns nor in any manner controls any parallel or competing line.

13. Does any officer of your company act as the officer of any other railroad corporation owning or having the control of a parallel or competing line?

No officer of this company acts as the officer of any other railroad corporation, owning or having control of a parallel or competing line.

14. What running arrangements have you with other railroad companies, setting forth the contracts for the same, made since the date of your last report?

None.

15. Have you such arrangements with other railroad companies crossing or connecting with your lines, as enable passengers to make close connections with trains on such lines, at all such crossings or connecting points? If so, when were such arrangements made? If not at all such points, state at what points such connections are not made, and the reasons therefor.

This company's arrangements with other railroad companies enable passenger to make as close connections at every crossing or connecting point as a proper regard for all such connections will admit. These arrangements are made from time to time, whenever time-tables are revised.

There are no points where reasonably close connections are not made.

16. Have any swamp or other state lands been granted your company since the date of your last report? If so, how many acres?

None.

17. Have any United States lands been granted to your company, directly or indirectly, since the date of your last report? What number acres received by your company, directly or indirectly, since date of last report?

No United States lands have been granted since date of last report. There have been certified, under original grant, since last report 200.14 acres.

18. What number acres sold and conveyed since date of your last report?

1,770.48 acres.

19. Average price, per acre, realized?

\$4.83.

29. To what corporations have you sold land? How much, and what price, since the date of your last report?
The "Oconto Company." 640 acres; average price, \$2.90 per acre.
31. Number of acres now held by company?
859,579¹/₈₈.
22. Average price asked for lands now held by company?
About \$1 97.
23. Value of donations of right of way or other real estate received since the date of your last report?
Nothing.
24. Amount of city, county and town aid granted to company in exchange for stock, or otherwise? Specify particulars since date of last report.
No city, county or town aid has been granted to this company in exchange for stock, or otherwise, since date of last report.
25. Total cash amount realized from such aid since date of your last report?
Nothing.
26. Amount of land sold, but not conveyed, under contracts now in force?
Eighty acres.
27. The whole amount of cash, principal and interest, received for lands hitherto sold and conveyed since date of last report?
\$7,650 66.
28. Whole amount of cash received, principal and interest, on outstanding contracts in force, since date of last report?
\$49 60.
29. Whole amount of cash received, principal and interest, on contracts forfeited, since date of last report?
None.
30. Whole amount of cash received for stumpage, trespass, etc., since date of last report?
None.
31. What have been your total receipts from lands sold, and contracted to be sold, since the date of last report?
\$7,700 26.
32. What is the aggregate sum of receipts on account of lands, from all sources whatever, up to the present time?
\$126,612 22.
33. What is the amount now due the company on lands sold, or contracted to be sold?
\$160 00.
34. Are there any terminal points or places on your lines in or out of the state to and from which the larger portion of the freight transported on your lines is carried? If so, name them.
Yes, Chicago and Milwaukee.
35. Have you made any advance in the rates of freight from stations on your lines to such terminal points since the enactment of chapter 57 of the laws of 1876?
We have in some cases.
36. Have you made any reductions in such rates, from any stations, since the passage of said chapter?
We have.
If you answer either of the questions in the affirmative, annex to your reply schedules, naming the stations, with distance and rates in force at the time, and since the passage of said chapter, on 1st, 2d, 3d and 4th class of freight, and upon flour, grain, live stock, agricultural implements, salt and coal.
See schedule filed with report of September 30, 1876; also schedule attached to page 19 of this report, showing changes since that date. (See p. 80 of printed report.)
37. Have you made such advance or reduction on your rates of freight between other stations on your line? If yes, annex a schedule to your reply, showing what the advance or reduction has been on the articles above named.

¹ The "distance tariff," with both rates noted thereon, will be a sufficient answer.

See schedule annexed to report of September 30, 1876.

38. What is your present tariff per mile for passengers, both through and local?

Local tickets, one way, 4 cents; round trip tickets, 8 cents.

39. What proportion of the passengers carried by you, in this state, purchase round trip tickets? And what proportion purchase 500 mile tickets?

Local tickets, .5818; round trip tickets, .4189; 500 mile tickets, 43.

40. Have you made any advance in the rates of freight for lumber since the passage of chapter 57 of the laws of 1876? If so, annex to your reply a schedule, naming the stations and rates in force both at the time and since the passage of said chapter.

See schedule annexed to report of September 30, 1876.

41. Has your company any rule governing your conductors, engineers and trainmen concerning the use of intoxicating liquors? *If so, what is it, and is it enforced?*

The rules of this company absolutely prohibit the use of intoxicating liquors by conductors, engineers and trainmen, and they are strictly enforced.

ACCIDENTS (causing injury to person) IN WISCONSIN, DURING THE YEAR ENDING SEPTEMBER 30, 1877.

Date.	Place.	Name.		Cause.	Result.
Nov. 20	De Pere	Micheal Diedrick	O	Walking on track.	Killed.
Dec. 19	Appleton	Geo. O'Brine	O	Climbing on moving cars.	Killed.
Dec. 16	Peshigo	Thomas Burke	E	Falling between cars	Killed.
Dec. 20	Reedsburg	Sibley Nye	O	Struck by moving engine	Injured.
Feb. 1	Wonegan	Daniel Brining	E	Coupling cars	Injured.
Mch. 9	Jefferson	Alvin Campbell	O	Asleep on track	Killed.
Mch. 9	St. Francis	Thomas Carroll	O	Struck on crossing	Killed.
Mch. 26	Janesville	Wm. Ehle	O	Climbing on moving cars	Injured.
Mch. 28	Devils Lake	Chas. Stone	O	Jumping from moving train	Injured.
April 1	Tunnel No. 1	Jno. Y. Hunter	E	Fell from train	Injured.
April 11	Oconto	Neil McArthur	O	Climbing on moving train	Injured.
June 6	Fond du Lac	Herman Sonneberg	O	Run over by engine	Injured.
June 7	Marquette	James Drake	E	Climbing on moving cars	Injured.
June 14	Madison	B. Cody	O	Climbing on moving cars	Injured.
July 2	Oshkosh	Peter Johnson	P	Jumping from moving train into river	Drowned.
July 28	Madison	Henry Nolte	O	Fell under cars	Killed.
Aug. 7	Onalaska	Joseph Ebert	E	Stealing a ride and fell off	Killed.
Aug. 23	Waunakee	Joseph Hacken	O	Climbing on moving train	Killed.
Aug. 18	Oakfield	Jno. R. Shrick	O	Rock caved in on him	Killed.
Sept. 7	Tunnel No. 2	Patrick Connor	E	Playing on cars and fell off	Killed.
Sept. 12	Fond du Lac	Joseph Hatt	O	Intoxicated and run over by cars	Killed.
Sept. 16	Brahoo	Joseph Drayer	O	Climbing on moving cars	Injured.
Sept. 27	Beloit	Richard Howe	O		

RECAPITULATION.

	Killed.	Injured.	Drowned.
Passengers	0	0	1
Employees	2	8	..
Others	8	8	..
Totals	11	11	1

1. Of the above accidents, those numbered as follows were caused by broken rails.
Total No., none.
2. Of the above accidents, those numbered as follows were caused by inattention of employees:
Total No., none.
3. Of the above accidents, those numbered as follows were caused by collisions not properly coming under 2.
Total No., none.
4. Of the above accidents, those numbered as follows were caused by explosions:
Total No., none.
5. Amount paid as damages caused by fire from locomotives:
6. Number and kind of farm animals killed, and amount of damages paid therefor, \$9,418 68.
7. Amount claimed yet unsettled, or in litigation, \$655.

STATE OF ILLINOIS—Cook County—ss:

Albert Keep, President, and J. B. Redfield, Assistant Secretary, of the Chicago and Northwestern Railway Company, being duly sworn, depose and say that they have caused the foregoing statements to be prepared by the proper officers and agents of this company, and having carefully examined the same, declare them to be a true, full and correct statement of the condition and affairs of said company, on the first day of October, A. D. 1877, to the best of their knowledge and belief.

Signed,

[SEAL.]

ALBERT KEEP,
J. B. REDFIELD,

Subscribed and sworn to before me, at Chicago, this 20th day of November, A. D. 1877.

[SEAL]

RALPH C. RICHARDS,
Notary Public.

CHICAGO AND NORTHWESTERN RAILROAD.

FREIGHT TARIFF.

SCHEDULE in reply to questions 36, page 15, of *Railroad Commissioners Report, State of Wisconsin, for the year 1876-77.*

Distances.	Between Milwaukee and —	Merchandise per 100 pounds.				Grain in C. L., per 100 pounds.	Flour in lots of 80 lbs. or more, per barrel.	Salt, lime, stucco, cement, water lime, plaster, 25 lbs. or over per barrel.	Lumber, saw and shingles in car loads, per car.	Cattle or hogs in car loads, per car.	ARTICLES ENUMERATED IN—		
		1.	2.	3.	4.						A.	B.	C.
117	<i>Little Kaukauna—</i>										Agricultural imple-	Woodenware, tops,	Coal, etc., per car.
	Prior to chapter 57, 1876.....	36c	30c	24c	20c	18c	26c	35c		\$30 00	\$32 00	\$24 00	\$22 00
	Present rates	25	23	20	15	12	24	29		31 00	30 00	23 00	20 00
	Increase on old rates.....												
123	Decrease on old rates.....	11	8	4	5	1	2	6		\$1 00	\$2 00	\$2 00	\$2 00
	<i>Depere—</i>												
	Prior to chapter 57, 1876							35c	\$23 00	\$30 00		\$23 00	
	Present rates.....							29	21 00	31 00		23 00	
	Increase on old rates.....									\$1 00			
	Decrease on old rates.....							6c	\$1 00			\$1 00	

128	<i>Fort Howard Junction —</i> Prior to chapter 57, 1876.....	41c	38c	28c	23c	17c	34c	35c	30	30.00	37.00	23.00	23.00	.....
	Present rates.....	25	23	20	16	12	24	30		33.00	35.00	27.00	25.00	.....
	Increase on old rates.....													.....
	Decrease on old rates.....													.....
129	<i>Fort Howard —</i> Prior to chapter 57, 1876.....							37c	30	28.00	32.00	23.00	23.00	.....
	Present rates.....							30		22.00	33.00	23.00	23.00	.....
	Increase on old rates.....										1.00			.....
	Decrease on old rates.....							07		1.00			1.00	.....
138	<i>Duck Creek —</i> Prior to chapter 57, 1876.....	41c	38c	28c	23c	17c	34c	39c	30	34.00	37.00	23.00	23.00	.....
	Present rates.....	25	23	20	16	12	24	30		33.00	35.00	27.00	25.00	.....
	Increase on old rates.....													.....
	Decrease on old rates.....	16	11	08	07	05	10	09		1.00	2.00	2.00	1.00	.....
138	<i>Big Suamico —</i> Prior to chapter 57, 1876.....	43c	34c	29c	24c	19c	38c	40c		36.00	39.00	31.00	27.00	.....
	Present rates.....	26	23	21	17	13	26	31		33.00	37.00	29.00	26.00	.....
	Increase on old rates.....													.....
	Decrease on old rates.....	17	11	08	07	06	13	09		8.00	2.00	2.00	1.00	.....
143	<i>Little Suamico —</i> Prior to chapter 57, 1876.....	45c	35c	30c	25c	23c	44c	42c		38.00	41.00	33.00	28.00	.....
	Present rates.....	26	23	21	17	13	26	31		33.00	39.00	30.00	27.00	.....
	Increase on old rates.....													.....
	Decrease on old rates.....	19	13	09	08	09	18	11		5.00	2.00	3.00	1.00	.....

Chicago and Northwestern Railway — Freight-Tariff — continued.

Distance.		Merchandise per 100 pounds.				Grain in C. L. per 100 lbs.	Flour, in lots of 50 bbls. or more, per barrel.	Salt, lime, stucco, cement, water, lime, plaster, 25 bbls. or over, per barrel.	Lumber, lath and shingles in car loads, per car.	Cattle or hogs in car loads, per car.	ARTICLES ENUMERATED IN —		
		1.	2.	3.	4.						A.	B.	C.
149	<i>Brookside—*</i>										Agricultural im- plements, etc., per car.	Wooden ware, hoops, hay, per car.	Coal, etc., per car.
	Prior to ch. 57, 1876.....	27c	24c	23c	18c	14c	28c	32c	\$24 00	\$33 00	\$41 00	\$32 00	\$29 00
	Present rates.....												
	Increase on old rates.....												
153	<i>Pennsauken —</i>												
	Prior to ch. 57, 1876.....	45c	35c	30c	25c	22c	44c	44c	\$25 00	\$40 00	\$43 00	\$34 00	.....
	Present rates.....	28c	25c	23c	18c	14c	38c	33c	24 00	38 00	41 00	32 00	.....
	Increase on old rates.....												
	Decrease	17c	10c	08c	07c	06c	16c	19c	\$1 00	\$7 00	\$3 00	\$3 00	.....

168	<i>Oconto.</i> Prior to chapter 57, 1876 Present rates	25 29	23 23	20 23	15 19	23 14	46 28	46 33	\$26 00 25 00	\$43 00 33 00	\$30 00 43 00	\$23 00 33 00	\$20 00 30 00
	Increase on old rates..... Decrease on old rates	04	04	08	04	09	18	18	\$1 00	\$9 00	\$12 00	\$10 00	\$10 00
167	<i>Cassida.</i> Prior to chapter 57, 1876 Present rates	30	27	24	20	15	30	33	\$26 00	\$33 00	\$44 00	\$34 00	\$31 00
171	<i>Peshigo.</i> Prior to chapter 57, 1876 Present rates	25 31	23 23	20 24	15 20	24 15	48 30	46 34	\$27 00 26 00	\$44 00 33 00	\$30 00 44 00	\$23 00 34 00	\$20 00 31 00
	Increase on old rates..... Decrease on old rates	06	06	04	05	09	18	12	\$1 00	\$11 00	\$14 00	\$11 00	\$11 00
178	<i>Marinette.</i> Prior to chapter 57, 1876 Present rates	25 33	23 23	20 25	15 21	24 16	48 32	46 35	\$45 00	\$38 00	\$30 00 45 00	\$23 00 35 00	\$20 00 32 00
	Increase on old rates..... Decrease on old rates	07	07	05	06	08	16	11	\$12 00	\$12 00	\$15 00	\$12 00	\$12 00

* New Stations.

REPORT
OF THE
CHIPPEWA FALLS AND WESTERN RAILWAY COMPANY,

For the year ending 30th September, 1877.

OFFICERS AND OFFICES OF THE COMPANY OPERATING.

NAMES.	OFFICE.	ADDRESS.	SAL'RIES.
Thad. C. Pound.....	President.....	Chippewa Falls.....	.....
W. P. Bartlett.....	1st Vice-President	Eau Claire .....	.....
L. C. Stanley.....	Secretary.....	Chippewa Falls.....	.....
.....	Solicitor .....	.....	.....
L. C. Stanley	Treasurer	Chippewa Falls.....	.....
L. C. Stanley.....	General Manager	Chippewa Falls.....	.....
.....	General Superintendent.....	.....	.....
.....	Chief Engineer.....	.....	.....
L. C. Stanley.....	General Ticket Agent..	Chippewa Falls.....	.....
.....	General Freight Agent..	.....	.....
.....	Auditor.....	.....	.....
Total salaries.....	.....	.....	.....

1. General offices at Chippewa Falls.

NAMES OF DIRECTORS.	RESIDENCE.
Horace Thompson	St. Paul.
Thad. C. Pound.....	Chippewa Falls
W. P. Bartlett	Eau Claire.
L. C. Stanley	Chippewa Falls
D. E. Seymour	Chippewa Falls
H. S. Allen	Chippewa Falls
E. D. Stanley	Chippewa Falls

EXECUTIVE COMMITTEE.

Thad C. Pound,

W. P. Bartlett,

L. C. Stanley.

2. Date of annual election of Directors,
November 26th, 1877.
3. Name and address of person to whom correspondence concerning this
report should be directed,
L. C. Stanley, Chippewa Falls, Wis.

CAPITAL STOCK.

1. Capital stock authorized by charter.....	\$160,000 00
2. How many kinds of stock?	
3. Amount of common stock.....	148,200 00
4. Amount of preferred stock.....	
5. Total capital stock	<u>\$148,200 00</u>
6. Proportion of stock for Wisconsin*.....	
7. Rate of preference.....	
8. How much <i>common</i> stock has been issued during the year ending September 30th, 1877.....	\$21,400 00
9. For what purpose? and what was received therefor? ...	
10. How much <i>preferred</i> stock has been issued during the year ending September 30th, 1877.....	
11. For what purpose? and what was received therefor? Liquidation of indebtedness.	

*Unless some good reason exists to the contrary, this proportion — and all other estimates of the same character — should be for the miles of road in this state compared with the whole. If made on a different basis, please state the reasons therefor.

FUNDED AND UNFUNDED DEBT.

	Total.	Wisconsin lines.
1. Describe severally all outstanding classes of bonds, including amount, dates of issue, in- terest, where and when payable.....	\$181,000 00	Same.
2. Amount of debt not secured by mortgage....	13,836 08	Same.
3. Total funded and unfunded debt.....	<u>\$144,836 08</u>	
4. Net cash realized from bonded debt, above de- scribed	\$111,850 00	Same.
5. Proportion of debt, bonded and floating, for Wisconsin.....		

COST OF ROAD AND EQUIPMENT.

	Total.	Wisconsin lines.
1. What amount has been expended for right of way, during the year ending, Sept. 30, 1877?	\$100 00 .....	.....
2. What for real estate, and for what purpose purchased? .....	.....	.....
3. What has been expended in construction during the year ending, Sept. 30, 1877?	1,850 81 .....	.....
4. What for improvement? .....	.....	.....
5. What for other items of expense, for construction and equipment?	1,340 88 .....	.....
6. What amounts, if any, have been paid for roads or portions of roads not built by company during the time mentioned. ....	.....	.....
7. Total expended during the year ending, Sept. 30, 1877.	\$2,791 14 .....	.....
8. Total cost of entire line, as per last report	\$177,622 89 .....	.....
9. Total cost of entire line, to date.	\$180,413 53 .....	.....

**ORIGINAL COST AND PRESENT ESTIMATED VALUE OF TOTAL
PROPERTY IN THIS STATE.**

DESCRIPTION OF PROPERTY.	Total.	In Wisconsin.
1. What amount has been expended for grading during year ending Sept. 30, 1877. Nothing		
2. How much for bridges.....do.....		
3. How much for tunnels.....do.....		
4. How much for iron bridges.....do.....		
5. How much for wooden bridges.....do.....		
6. How much for ties and tying.....do.....		
7. How much for iron rails. No. miles.. Lbs. wt. per yard.....Nothing		
8. How much for steel rail No. miles.. Lbs. weight per yard.....Nothing		
9. How much for chains, spikes, fish-bar..do.....		
10. How much for laying track.....do.....		
11. How much for passenger and freight stations, fixtures and furniture, as per schedule. No. stations....	\$410 98	
12. How much for engine and car shops. No.. Nothing		
13. How much for machine shops. No....do.....		
14. How much for machinery and fixtures.do.....		
15. How much for engine houses. No..do.....		
16. How much for car sheds. No...do.....		
17. How much for turn tables. No...do.....		
18. How much for track and other scales. No.. Nothing		
19. How much for wood sheds and water stations. No.. Nothing		
20. How much for fencing. No. miles, 8.	1,000 00	
21. How much for elevators. No...do.....		
22. How much for locomotives and tenders. No... Av. wt. tons.....	878 90	
23. How much for snow plows, as per schedule. No... Av. wt. tons.....		
24. How much for wreckers. No.. Av. wt. tons		
25. How much for passenger cars, 1st class. No... Av. wt. tons		
26. How much for passenger cars, 2d class. No. .. Av. wt. tons.....	360 98	
27. How much for baggage cars. No.. Av. wt. tons.....		
28. How much for mail cars. No.. Av. wt. tons		
29. How much for exp. cars. No.. Av. wt. tons		
30. How much for freight cars, closed. No. ... Av. wt. tons		
31. How much for plat'f'm cars. No.. Av. wt. tons		
32. How much for hand cars. No.. Av. wt. tons		
33. How much for machinery and tools to accompany trains, repair track, etc., used by trackmen or others.....	39 88	
34. How much for all other property not enum'd.	605 45	
35. Total amount expended during the year ending, Sept. 30, 1877.....	\$2,791 14	

CHARACTERISTICS OF ROAD.

LENGTH OF ROAD.	MILES.		Weight of Rail per yard.
	Entire Length.	Length in Wis- consin.	
1. Length of main line of road from — to — ..	10 $\frac{1}{3}$	10 $\frac{1}{3}$	65
2. Length of double track on main line.....	$\frac{1}{2}$		
* BRANCHES — Name each.			
3. Length of branch.....			
From — to — length of double track on branch			
4. Length of branch			
From — to — length of double track on branch			
5. Length of branch.....			
From — to — length of double track on branch			
6. Length of branch			
From — to — length of double track on branch			
7. Total length of main line and branches ..			
8. Aggregate length of tracks operated by this company, computed as single track.			
9. Aggregate length of sidings and other track not above numerated.			
10. Number of junction stations.			
11. What is the guage of your lines?			

DOINGS OF THE YEAR IN TRANSPORTATION.

CHARACTER OF SERVICE.	No. of persons employed.	Average salary per annum.
1. Division and assistant superintendents.....		
Clerks in all offices.....		
Master and assistant mechanics.....		
Conductors	1	\$1,000 00
Engineers	1	1,200 00
Brakemen	2	450 00
Flagmen, switch-tenders, gate-keepers and watchmen.....		
Station agents.....	2	900 00
Section men (salary per month, \$37.50).....	5	87 50
Laborers.....	1	300 00
Other employees	8	600 00

* This includes leased lines — designate them as such — the earnings, expenses, etc., of which are given in this report.

Doings of the Year in Transportation — continued.

MILEAGE AND TONNAGE.	MILES.	
	Whole line.	In Wisconsin.
2. Number of miles run by passenger trains	12,896	.....
3. Number of miles run by freight and mixed trains	6,448	.....
4. Number of miles run by construction and other trains . . . . .		.....
5. Total mileage	19,844	.....
6. Total number of passengers carried	88,400	.....
7. Total number of freight carried one mile . .	64,910	.....
8. Total number passengers carried one mile . .	884,000	.....
9. Average distance traveled by each passenger.	10	.....
Miles per hour.		
10. The highest rate of speed allowed for express passenger trains.	20	
11. Schedule rates of same, including stops	20	
12. The highest rate of speed allowed for mail and accommodation trains	20	
13. Schedule of same, including stops	20	
14. The highest rate of speed allowed for freight trains	20	
15. Schedule rate of same, including stops	20	
16. Amount of freight carried per car	9 tons.	
17. TOTAL FREIGHT IN TONS.		
Grain	1,344	.....
Flour	1,208	.....
Provisions	562	.....
Salt, cement, water lime and stucco	228	.....
Manufactures, including agricultural implements, furniture and wagons	85	.....
Live stock	8	.....
Lumber and forest products	20	.....
Iron, lead, and mineral products . . . . .		.....
Stone, brick, lime, sand, etc	166	.....
Coal	875	.....
Merchandise and other articles	2,495	.....
Total tons	6,491	.....

EARNINGS DURING THE YEAR ENDING SEPTEMBER 30, 1877.

MONTHLY EARNINGS FROM ALL SOURCES.

MONTHS.	PASSENGERS.		FREIGHT.		MAILS, EXPR'S, AND ALL OTHER SOURCES.		TOTALS.	
	Whole Line.	Wis	Whole Line.	Wis	Whole Line.	Wis	Whole Line.	Wis
1876.								
October	\$1,632 50	...	\$1,239 37	....	\$66 80	....	\$2,938 67	....
November	1,968 15	....	1,120 04	....	59 79	....	3,147 98	....
December	1,297 10	....	1,078 72	....	69 32	....	2,445 14	....
1877.								
January	874 25	....	805 09	....	50 99	....	1,730 33	....
February	1,046 00	....	798 63	....	52 84	....	1,897 47	....
March	1,477 45	....	591 86	....	50 62	....	2,119 93	....
April	1,931 75	....	901 97	....	62 34	....	2,896 06	....
May	1,466 55	..	757 93	....	68 98	....	2,293 46	....
June	1,201 13	....	712 53	....	62 96	....	1,976 63	....
July	1,853 60	....	751 68	....	59 40	....	2,664 68	....
August	1,017 40	....	575 01	....	59 81	....	1,652 22	....
September	1,086 00	....	1,104 15	....	66 77	....	2,256 92	....
Totals...	\$16,851 88	...	\$10,436 98	....	\$730 62	....	\$28,019 48	....

1. Earnings per mile of road .. \$3,728 53
2. Earnings per mile of road on freight .. 1,010 30
3. Earnings per mile on passengers .. 1,630 83
4. Earnings per train-mile run, on freight .. 1 63
5. Earnings per train-mile run, on passengers .. 1 31
6. Of the earnings of the entire line, what is the ratio of the passenger to the freight? As .. 10 to 16
7. Average gross earnings per mile [miles] of road, exclusive of sidings .. \$2,728 32
8. Average net earnings per mile [miles] of road, exclusive of sidings ..
9. Average net earnings per train-mile ..

EXPENSES DURING THE YEAR ENDING SEPTEMBER 30, 1877.

PAYMENTS FOR CURRENT AND OPERATING EXPENSES.

		Belonging to Whole Line.	Belong- ing to Wiscon- sin.
1. Maintenance of way —			
Repairs of track, including new and re-rolled iron rail in place of old iron rails.....			
Repairs of bridges			
Repairs of fences.....			
New steel rail, valued only as iron rail*			
Other expenses on way.....		\$1,900 00	
2. Maintenance of buildings			
3. Maintenance of rolling stock —			
Locomotives	\$873 90		
Passeng'r, baggage, mail and exp. cars }	860 98		
Freight cars			
Shop tools and machinery.....			
4. Conducting transportation, and general expenses —			
Management of general office	1,800 00		
Foreign agency and advertising.....	8 30		
Agents and station service.....	3,180 00		
Conductors, baggage and brakemen.....	1,900 00		
Engineers, firemen and wipers.....	2,288 75		
Train and station supplies.....	225 10		
Fuel consumed.....	1,200 00		
Oil and waste.....	264 57		
Personal expenses.....			
Damage to persons.....			
Damage to property.....			
Loss and damage to freight and baggage			
Legal expenses.....			
Other general operating expenses as per items below			
5. Current expenses —			
For taxes			
For insurance.....	64 00		
Lease or privilege of other roads whose earnings are included in this report, giving name and amounts paid	720 00		
		12,885 60	
6. Total current operating expenses, being 51 per cent. of earnings.....		14,285 60	
7. Average operating expenses per mile of road, exclusive of sidings.....		1,382 47	
8. Average operating expenses per train-mile.....		74	
9. Excess of earnings over operating and current expenses		13,738 88	
10. Cost of maintaining track and bridges permile run		10	
11. Cost of repairs of engines per mile run.....		2	
12. Cost of engineers and firemen per mile run.....		12	
13. Cost of oil and waste per mile run.....		1-5	
14. Cost of fuel per mile run		6-8	

* In substituting steel rail for iron rail, the cost of iron rail only should be charged to operating account, and the excess carried to extraordinary expenses. (See next page.)

Expenses, etc. — continued.

PAYMENTS IN ADDITION TO OPERATING EXPENSES.

	Belonging to whole line.	Belonging to Wisconsin.
15. New steel rail, excess of cost over iron rail, old track		
16. New rail on new track.....		
17. New equipment.....		
18. New bridges and culverts (not including replacements)		
19. Real estate bought during the year.....		
20. New tools and machinery.....		
21. New buildings.....		
22. Total paid for new investment on the length of the company's line since date of last report.....		
23. Amounts paid in cash, stock, bonds, or otherwise, for extensions, new lines and branches, during the past year — specify particularly.....		
Total new investment.....		
24. For interest on bonds, \$10,087 00.....		
25. Dividends—rate — per cent. — on preferred stock. Interest on floating debt, \$2,151.64.....		
26. Dividends—rate — per cent. on com- mon stock		
27. Total payments in addition to operating expenses.....	\$12,288 64	
28. What amount of money have you expended for building roads out of the state, from proceeds arising from business done on your roads in this state?		

29. How was amount of dividends paid the past year — cash, stock or other-
wise? Specify amounts and manner of payment.

GENERAL BALANCE SHEET, 1st OF OCTOBER, 1877.

ASSETS.	AMOUNT.	LIABILITIES.	AMOUNT.
Cost of road.....	\$180,418 53	Received for stock subscribed.....	\$90,550 00
Supplies and material on hand.....	1,919 21	Received for stock and bonds sold.....	111,330 00
Total.....	\$182,338 74	Floating debt.....	18,336 08
		Earnings to capital account.....	27,096 71
		Total.....	\$182,338 74

1. What regulations govern your employees in regard to crossings of other railroads, and are they found to be sufficient?
Do not cross.
2. What regulations govern your employees in regard to crossings of public highways? And are these regulations found to be sufficient?
Requirements of state laws are found sufficient.
3. What platform and coupler between passenger cars do you use?
Miller.
4. What kind of brakes do you use on passenger trains?
Hand.

U. S. MAIL.

5. What is the compensation paid you by the U. S. government for the transportation of its mails, and on what terms of service?
\$300 per year.

EXPRESS COMPANIES.

6. What express companies run on your road, and on what terms, and what conditions as to rates, use of track, machinery, repairs of cars, etc.; what kind of business is done by them, and do you take their freights at the depot, or at the office of such express companies?
American Express. 20 cents per 100 pounds.

TRANSPORTATION COMPANIES.

7. What freight and transportation companies run on your road, and on what terms, and on what conditions as to rates, use of track, machinery, repairs of cars, etc.? Do they use the cars of your company, or those furnished by themselves, and are their cars or their freight given any preference in speed or order of transportation, and if so, in what particular?
None.

SLEEPING CARS.

8. Do sleeping or dining cars run on your road, and if so, on what terms are they run, by whom are they owned, and what charges are made in addition to the regular passenger rates?
None.

ADDITIONAL QUESTIONS.

9. Have you acquired any additional chartered rights or privileges under the special or general laws of this state, directly or indirectly, since your last report?
None.
10. Have you acquired any such additional rights or privileges under the laws, general or special, of any other state, since your last report?
None.
11. Have you acquired any lines in or out of this State, by purchase, lease, consolidation or otherwise, since your last report? If yes, give full particulars relating thereto, including length of line, location thereof, at what point or place connection is made with old line; terms of purchase or lease, and brief statement of reasons for making such purchase or lease, and whether made by consent of stockholders?
None.

12. Do you, by purchase or ownership of capital stock, or in any other manner, control any other railroad corporation owning or having under its control a parallel or competing line?
No.
13. Does any officer of your company act as the officer of any other railroad corporation, owning or having the control of a parallel or competing line?
No.
14. What running arrangements have you with other railroad companies, setting forth the contracts for the same, made since the date of your last report?
None.
15. Have you such arrangements with other railroad companies crossing or connecting with your lines, as enable passengers to make direct connections with trains on such lines, at all such crossing or connecting points? If so, when were such arrangements made? If not at all such points, state at what points such connections are not made, and the reasons therefor?
Close connection with West Wis. R. R. at Eau Claire.
16. Have any swamp or other State lands been granted your Company since the date of your last report? If so, how many acres?
No.
17. Have any United States lands been granted to your Company, directly or indirectly, since the date of your last report? What number acres received by your Company, directly or indirectly, since date of last report?
No.
18. What number acres sold and conveyed since date of your last report?
None.
19. Average price, per acre, realized?
20. To what corporations have you sold land? How much, and what price, since the date of your last report?
None.
21. Number of acres now held by Company?
None.
22. Average price asked for lands now held by Company?
23. Value of donations of right of way or other real estate received since the date of your last report?
None.
24. Amount of city, county and town aid granted to Company in exchange for stock, or otherwise? Specify particulars since date of last report?
None.
25. Total cash amount realized from such aid since date of your last report?
None.
26. Amount of land sold, but not conveyed, under contracts now in force?
None.
27. The whole amount of cash, principal and interest, received for lands hitherto sold and conveyed, since date of last report?
None.
28. Whole amount of cash received, principal and interest, on outstanding contracts in force, since date of last report?
None.
29. Whole amount of cash received, principal and interest, on contracts forfeited, since date of last report?
None.
30. Whole amount of cash received for stumpage, trespasses, etc., since date of last report?
None.
31. What have been your total receipts from lands sold, and contracted to be sold, since the date of last report?
None.
32. What is the aggregate sum of receipts on account of lands, from all sources whatever, up to present time?
None.

33. What is the amount now due the Company on lands sold, or contracted to be sold?
None.
34. Are there any terminal points or places, on your lines in, or out, of this state, to and from which the larger portion of the freight transported on your lines is carried? If so, name them.
No.
35. Have you made any advance in the rates of freight, from stations on your lines, to such terminal points since the enactment of chapter 57 of laws of 1876?
No.
36. Have you made any reductions in such rates, from any stations, since the passage of said chapter?
If you answer either of the questions in the affirmative, annex to your reply schedules, naming the stations, with distance and rates in force at the time, and since the passage of said chapter, on 1st, 2d, 3d and 4th class of freight, and upon flour, grain, live stock, agricultural implements, salt, and coal.
No.
37. *Have you made such advance or reduction on your rates of freight between other stations on your line? If yes, annex a schedule to your reply, showing what the advance or reduction has been on the articles above named.
No.
38. What is your present tariff per mile for passengers, both through and local?
4½¢.
39. What proportion of the passengers carried by you, in this State, purchase round trip-tickets? And what proportion purchase 500-mile tickets?
None.
40. Have you made any advance in the rates of freight for lumber, since the passage of chapter 57, of the laws of 1876? If so, annex to your reply a schedule, naming the stations and rates in force both at the time and since the passage of said chapter.
No.
41. Has your Company any rule governing your conductors, engineers, and trainmen concerning the use of intoxicating liquors? *If so, what is it, and is it enforced?*
Perfect sobriety required, and no liquors on the property.

* The "distance tariff," with both rates noted thereon, will be a sufficient answer.

No. of Accidents.

[illegible]

1. Of the above accidents, those numbered as follows were caused by broken rails.
Total No.
2. Of the above accidents those numbered as follows were caused by inattention of employees:
Total No.
3. Of the above accidents those numbered as follows were caused by collisions not properly coming under 2:
Total No.
4. Of the above accidents those numbered as follows were caused by explosions:
Total No.
5. Amount paid as damages caused by fire from locomotives.

NUMBER AND KIND OF FARM-ANIMALS KILLED, AND AMOUNT OF DAMAGES PAID THEREFOR.

	Number Killed.	Amount Paid.
1. Cattle	2	\$60 00
2. Horses		
3. Mules		
4. Sheep		
5. Hogs		
6. Total	2	\$60 00

7. Amount claimed yet unsettled, or in litigation. None.

STATE OF WISCONSIN, }
County of Eau Claire, } ss.

William P. Bartlett, Vice President, and L. C. Stanley, Secretary and General Manager, of the Chippewa Falls and Western Railway Company, being duly sworn, depose and say that they have caused the foregoing statements to be prepared by the proper officers and agents of this company, and having carefully examined the same, declare them to be a true, full and correct statement of the condition and affairs of said company, on the first day of October, A. D. 1877, to the best of their knowledge and belief. Signed.

[SEAL.]

W. P. BARTLETT,
L. C. STANLEY.

Subscribed and sworn to before me, this 30th day of October, A. D. 1877.

[SEAL.]

HENRY S. JANES,
Notary Public, Eau Claire Co., Wis.

REPORT
OF THE
GALENA AND SOUTHERN WISCONSIN RAILROAD COMPANY,
For the year ending 30th September, 1877.

OFFICERS AND OFFICES OF THE COMPANY OPERATING.

NAMES.	OFFICES.	ADDRESS.	SAL'RIES
R. Barrett	President.....	Galena, Ill .....	.....
M. Murphy.....	1st Vice President....	Benton, Wis....	.....
S. O. Sullman	Secretary.....	Galena .....	.....
.....	General Solicitor.....	.....	.....
.....	Treasurer .....	.....	.....
.....	General Manager .....	.....	.....
W. H. Blewett	General Superitendent..	Galena .....	.....
A. Comstock	Chief Engineer	Galena .....	.....
W. T. Harlow	General Ticket Agent..	Galena .....	.....
D. Rochford	General Freight Agent..	Galena .....	.....
.....	Auditor .....	.....	.....
Total Salaries .....	.....	.....	.....

1. General offices at Galena, Illinois.

NAMES OF DIRECTORS.	RESIDENCE.
R. Barrett.....	Galena.
M. Murphy.....	Benton.
D. Hunkins	Galena.
D. Rochford.....	Galena.

EXECUTIVE COMMITTEE.

R. Barrett,

M. Murphy,

W. H. Blewett.

2. Date of annual election of directors,
December.
3. Name and address of person to whom correspondence, concerning this report, should be directed,
R. Barrett, Galena, Illinois.

CAPITAL STOCK.

1. Capital stock authorized by charter. From \$100,000 to any amount that may be expended on the road.
2. How many kinds of stock?
One.
3. Amount of common stock \$174,000 00
4. Amount of preferred stock
5. Total capital stock..... \$174,000 00
6. *Proportion of stock for Wisconsin..... \$82,000 00
7. Rate of preference?
None.
8. How much common stock has been issued since Sept. 30, 1876?
None.
9. For what purpose? and what was received therefor?
10. How much preferred stock has been issued, since September. 30, 1876?
None.
11. For what purpose? and what was received therefor?

FUNDED AND UNFUNDED DEBT.

	Total.	Wisconsin Liabs.
1. Describe severally all outstanding ^o classes of bonds, including amounts, dates of issue, interest, where and when payable. First mortgage bonds of the company dated Oct. 1, 1872, 7 per cent. gold, 20 years from date	\$252,000 00	$\frac{3}{4}$
2. Amount of debt not secured by mortgage?....	88,671 63	.....
3. Total funded and unfunded debt.....	\$290,671 63	.....
4. Net cash realized from bonded debt, above described.	\$168,800 00	.....
5. Proportion of debt, bonded and floating, for Wisconsin .....	.....	.....

* Unless some good reason exists to the contrary, this proportion—and all other estimates of the same character—should be for the miles or road in this state compared with the whole. If made on a different basis please state the reasons therefor.

COST OF ROAD AND EQUIPMENT.

	Total.	Wisconsin Lines.
1. What amount has been expended for right of way, between Sept. 30, 1876, and Sept. 30, 1877? None.....		
2. What for for real estate, and for what purpose purchased? None.....		
3. What has been expended in construction between Sept. 30, 1876, and Sept. 30, 1877?	\$7,621 75	
4. What for improvement?.....		
5. What for other items of expense, for construction and equipment?		
6. What amounts, if any, have been paid for roads or portions of roads not built by company during the time mentioned?.....		
7. Total expended between Sept. 30, 1876, and Sept. 30, 1877.....	\$7,621 75	
8. Total cost of entire line, as per last report.	\$472,569 45	
9. Total cost of entire line to date.....	\$480,191 20	

**ORIGINAL COST AND PRESENT ESTIMATED VALUE OF TOTAL
PROPERTY IN THIS STATE.**

DESCRIPTION OF PROPERTY.	Total.	In Wisconsin.
1. What amount has been expended for grading between Sept. 30, 1876, and Sept. 30, 1877.....		
2. How much for bridges.....		
3. How much for tunnels.....		
4. How much for iron bridges.....		
5. How much for wooden bridges.....		
6. How much for ties and tying.....		
7. How much for iron rail, No. miles, lbs. wt. per yard.....		
8. How much for steel rail, No. miles, lbs. wt. per yard.....		
9. How much for chains, spikes, fish-bar, etc.....		
10. How much for laying track.....		
11. How much for passenger and freight stations, fixtures and furniture, as per schedule, No. stations.....		
12. How much for engine and car shops, No. —.....		
13. How much for machine shops, No. —.....		
14. How much for machinery and fixtures.....		
15. How much for engine houses, No. —.....		
16. How much for car sheds, No. —.....		
17. How much for turn tables, No. —.....		
18. How much for track and other scales, No. —.....		
19. How much for wood sheds and water stations, No. —.....		
20. How much for fencing, — No. miles, —.....		
21. How much for elevators, No. —.....		
22. How much for locomotives and tenders, No. — Av. wt. tons. —.....		
23. How much for snow plows, as per schedule, No. — Av. wt. tons, —.....		
24. How much for wreckers, No. — Av. wt. tons, —.....		
25. How much for passenger cars, 1st class, No. — Av. wt. tons, —.....		
26. How much for passenger cars, 2d class, No. — Av. wt. tons, —.....		
27. How much for baggage cars, No. — Av. wt. tons, —.....		
28. How much for mail cars, No. — Av. wt. tons, —.....		
29. How much for express cars, No. — Av. wt. tons, —.....		
30. How much for freight cars, closed, No. — Av. wt. tons, —.....		
31. How much for platform cars, No. — Av. wt. tons, —.....		
32. How much for hand cars, No. — Av. wt. tons, —.....		
33. How much for machinery and tools to accompany trains, repair track, etc., used by trackmen or others.....		
34. How much for all other property not enumerated.....		
35. Total amount expended between Sept. 30, 1876, and Sept. 30, 1877.....		

CHARACTERISTICS OF ROAD.

LENGTH OF ROAD.	MILES.		Weight of rail per yard.
	Entire Length.	Length in Wis- consin.	
1. Length of main line of road from Galena to Platteville	80	20	85
2. Length of double track on main line.....			
*BRANCHES — Name each.			
3. Length of branch			
From — to —, Length of double track on branch			
4. Length of branch			
From — to —, Length of double track on branch			
5. Length of branch			
From — to —, Length of double track on branch			
6. Length of branch			
From — to —, Length of double track on branch			
7. Total length of main line and branches.....	80	20	

8. Aggregate length of tracks operated by this company, computed as single track, 80 miles.
 9. Aggregate length of sidings and other track not above enumerated, 1 mile.
 10. Number of junction stations, —.
 11. What is the gauge of your lines? 3 feet.

DOINGS OF THE YEAR IN TRANSPORTATION.

CHARACTER OF SERVICE.	Number of persons Employed.	Average salary per annum.
1. Division and assistant superintendents.....		
Clerks in all offices.....		
Master and assistant mechanics	2	\$840 00
Conductors	1	780 00
Engineers	1	900 00
Brakemen	1	420 00
Flagmen, switch-tenders, gate-k'pers and watchmen	1	520 00
Station agents.....	6	230 00
Section men (average)	15	400 00
Laborers (none employed regularly).....		
Other employees		

* This includes leased lines — designate them as such — the earnings, expenses, etc., of which are given in this report.

Doings of the Year in Transportation — continued.

MILEAGE AND TONNAGE.	MILES.	
	Whole line.	In Wis-consin.
2. Number of miles run by passenger trains		
3. Number of miles run by freight and mixed trains	18,000	12,000
4. Number of miles run by construction and other trains		
5. Total mileage	18,000	12,000
6. Total number of passengers carried	8,458	
7. Total number tons freight carried one mile		
8. Total number passengers carried one mile	148,458	
9. Average distance traveled by each passenger ..	17 $\frac{1}{2}$	
	Miles per hour.	
10. The highest rate of speed allowed for express passenger trains		
11. Schedule rates of same, including stops		
12. The highest rate of speed allowed for mail and accommodation trains	15	
13. Schedule of same, including stops		
14. The highest rate of speed allowed for freight trains		
15. Schedule rate of same, including stops		
16. Amount of freight carried per car	16,000 lbs.	
17	TOTAL FREIGHT IN TONS.	
Grain	2,624	
Flour	136	
Provisions		
Salt, cement, water-lime and stucco	82	
Manufactures, including agricultural imple-ments, furniture and wagons		
Live stock	1,112	
Lumber and forest products	2,184	
Iron, lead and mineral products	1,008	
Stone, brick, lime, sand, etc.	80	
Coal		
Merchandise and other articles	792	
Total tons	7,968	

EARNINGS DURING THE YEAR ENDING SEPTEMBER 30, 1877.

MONTHLY EARNINGS FROM ALL SOURCES.

MONTHS.	PASSENGERS.		FREIGHT.		MAILS, EX-PRESS, AND ALL OTHER SOURCES.		TOTALS.	
	Whole line.	Wis	Whole line.	Wis	Whole line.	Wis	Whole line.	Wis
1876								
October	\$462 15	....	\$1,129 87	....	\$5 11	....	\$1,596 63	....
November	508 80	....	1,893 68	....		....	2,397 43	....
December	874 25	....	1,347 63	....	218 90	....	1,925 78	....
January	187 95	....	588 20	....	40 96	....	767 11	....
1877								
February	380 80	....	984 86	....	268 13	....	1,583 49	....
March	280 65	....	744 75	....		....	1,025 40	....
April	517 20	....	786 26	....	246 81	....	1,549 77	....
May	473 20	....	1,263 64	....	20 00	....	1,754 84	....
June	446 05	....	1,258 59	....	80 36	....	1,735 00	....
July	574 25	....	754 21	....	384 90	....	1,663 86	....
August	597 70	....	698 51	....	40 00	....	1,886 21	....
September	610 40	....	710 55	....	23 65	....	1,844 60	....
Totals	\$5,357 40	....	\$12,108 90	....	\$1,223 82	....	\$18,689 62	....

1. Earnings per mile of road.....	\$622 98
2. Earnings per mile of road on freight.....	408 68
3. Earnings per mile on passengers.....	178 58
4. Earnings per train-mile run, on freight.....	61 7 c.
5. Earnings per train-mile run, on passengers.....	297 c.
6. Of the earnings of the entire line, what is the ratio of the passenger to the freight?.....	as 1 to 2.14
7. Average gross earnings per mile [30 miles] of road, exclusive of sidings.....	622 98
8. Average net earnings per mile [30 miles] of road, exclusive of sidings.....	204 19
9. Average net earnings per train-mile.....	84 c.

EXPENSES DURING THE YEAR ENDING SEPTEMBER 30, 1877.

PAYMENTS FOR CURRENT AND OPERATING EXPENSES.

	Belonging to whole line	Belonging to Wis.
1. Maintenance of way:		
Repairs of track, including new and rerolled iron rail in place of old iron rail.....	\$4,563 19	
Repairs of bridges.....		
Repairs of fences.....		
New steel rail, valued only as iron rail ¹		
Other expenses on way.....		
2. Maintenance of buildings.....		
3. Maintenance of rolling stock.....	913 58	
Locomotives.....		
Passenger, baggage, mail and express cars.....		
Freight cars.....		
Shop tools and machinery.....		
4. Conducting transportation, and general ex- penses:		
Management and general office... \$159 83		
Foreign agency and advertising.....		
Agents and station service..... 1,333 35		
Conductors, baggage and brakemen 1,163 75		
Engineers, firemen and wipers... 1,952 25		
Train and station supplies..... 32 15		
Fuel consumed..... 1,788 63		
Oil and waste..... 103 00		
Personal expenses.....		
Damage to persons.....		
Damage to property..... 30 75		
Loss and damage to freight and baggage.....		
Legal expenses.....		
Other general operating expenses 445 60		
	7,007 31	
5. Current expenses:		
For taxes.....		
For insurance..... 80 65		
Lease or privilege of other roads whose earn- ings are included in this report, giving name and amounts paid.....		
6. Total current operating expenses, being 67 per cent. of earnings.....	\$12,564 73	
7. Average operating expenses per mile of road, exclusive of sidings.....	\$418 82	
8. Average operating expenses per train mile....	69 c.	
9. Excess of earnings over operating and current expenses.....	6,125 89	
10. Cost of maintaining track and bridges per mile run.....	25 c.	
11. Cost of repairs of engines per mile run.....		
12. Cost of engineers and firemen per mile run....	7 c.	
13. Cost of oil and waste per mile run....	1/2 c.	
14. Cost of fuel per mile run.....	10 c.	

¹ In substituting steel rail for iron rail, the cost of iron rail only should be charged to operating account, and the excess carried to extraordinary expenses.

Expenses, etc. — continued.

PAYMENTS IN ADDITION TO OPERATING EXPENSES.

	Belonging to Whole Line.	Belonging to Wisconsin.
15. New steel rails, excess of cost over iron rail, old track		
16. New rail on new track		
17. New equipment		
18. New bridges and culverts (not including re- placements)		
19. Real estate bought during the year		
20. New tools and machinery		
21. New buildings		
22. Total paid for new investment on the length of the company's lines since date of last report		
23. Amounts paid in cash, stock, bonds, or other- wise, for extensions, new lines and branches, during the past year — specify particulars		
Total new investments		
24. For interest on bonds		
25. Dividends — rate — per cent. — on preferred stock		
26. Dividends — rate — per cent. — on common stock		
Total payments in addition to operating ex- penses		
28. What amount of money have you expended for building roads out of the state, from proceeds arising from business done on your roads in this state?		

29. How was amount of dividends paid the past year — cash, stock or other-
wise? Specify amounts and manner of payment.

GENERAL BALANCE SHEET, 1st OF OCTOBER, 1877.

ASSETS.	Amount.	LIABILITIES.	Amount.
Construction accounts	\$480,191 20 1,563 45 9,279 82 4,087 50 4, 59 05	Stock	\$178,447 91
Due from sundry persons.....		Miscellaneous receipts	1,426 80
Transportation accounts.....		Bonds	252,000 00
Deposit for right of way and fencing.....		Bills payable	36,283 75
Cash		Profit and loss.....	11,976 80
		Surp. pay rolls	1,028 96
		Express	80 00
		Mail	861 81
		Passenger receipts.....	3,991 80
		Freight receipts.....	7,674 27
		Due sundry persons.....	1,358 92
Total.....	\$495,131 02	Total	\$495,131 02

1. What regulations govern your employees in regard to crossings of other railroads, and are they found to be sufficient?
None crossed by this road.
2. What regulations govern your employees in regard to crossings of public highways? And are these regulations found to be sufficient?
We blow whistle, and ring bell, and have found this sufficient.
3. What platform and coupler between passenger cars do you use?
The common one.
4. What kind of brakes do you use on passenger trains?
Common one.

U. S. MAIL.

5. What is the compensation paid you by the U. S. government for the transportation of its mails, and on what terms of service?
For carrying mail daily over whole length of road, \$1,381.05 per annum.

EXPRESS COMPANIES.

6. What express companies run on your road, and on what terms, and what conditions as to rates, use of track, machinery, repairs of cars, etc.; what kind of business is done by them, and do you take their freights at the depot, or at the office of such express companies?
American Express Co. \$20 per month.

TRANSPORTATION COMPANIES.

7. What freight and transportation companies run on your road and on what terms, and on what conditions as to rates, use of track, machinery, repairs of cars, etc.? Do they use the cars of your company, or those furnished by themselves, and are their cars or their freight given any preference in speed or order of transportation, and if so, in what particular?
None.

SLEEPING CARS.

8. Do sleeping or dining cars run on your road, and if so, on what terms are they run, by whom are they owned, and what charges are made in addition to the regular passenger rates?
None.

ADDITIONAL QUESTIONS.

9. Have you acquired any additional chartered rights or privileges under the special or general laws of this state, directly or indirectly, since your last report?
No.
10. Have you acquired any such additional rights or privileges under the laws, general or special, of any other state, since your last report?
No.
11. Have you acquired any lines in or out of this state, by purchase, lease, consolidation, or otherwise, since your last report? If yes, give full particulars relating thereto, including length of line, location thereof, at what point or place connection is made with old line; terms of purchase or lease, and brief statement of reasons for making such purchase or lease, and whether made by consent of stockholders?
No.

12. Do you, by purchase or ownership of capital stock, or in any other manner, control any other railroad corporation owning or having under its control a parallel or competing line?
No.
13. Does any officer of your company act as the officer of any other railroad corporation, owning or having the control of a parallel or competing line?
No.
14. What running arrangements have you with other railroad companies, setting forth the contracts for the same, made since the date of your last report?
None.
15. Have you such arrangements with other railroad companies crossing or connecting with your lines, as enable passengers to make close connections with trains on such lines, at all such crossing or connecting points? If so, when were such arrangements made? If not at all such points, state at *what* points such connections are not made, and the reasons therefor.
Have no arrangement, but run to meet the train of the I. C. railroad at Galena.
16. Have any swamp or other state lands been granted your company since the date of your last report? If so, how many acres?
No.
17. Have any United States lands been granted to your company, directly or indirectly, since the date of your last report? What number acres received by your company, directly or indirectly, since date of last report?
18. What number acres sold and conveyed since date of your last report?
19. Average price per acre realized?
20. To what corporations have you sold land? How much, and what price, since the date of your last report?
21. Number of acres now held by company?
22. Average price asked for lands now held by company?
23. Value of donations of right of way or other real estate received since the date of your last report?
24. Amount of city, county and town aid granted to company in exchange for stock, or otherwise? Specify particulars since date of last report.
25. Total cash amount realized from such aid since date of your last report?
26. Amount of land sold, but not conveyed, under contracts now in force?
None.
27. The whole amount of cash, principal and interest, received for lands hitherto sold and conveyed, since date of last report?
None.
28. Whole amount of cash received, principal and interest, on outstanding contracts, in force since date of last report?
None.
29. Whole amount of cash received, principal and interest, on contracts forfeited, since date of last report?
None.
30. Whole amount of cash received for stumpage, trespasses, etc., since date of last report?
None.
31. What have been your total receipts from lands sold, and contracted to be sold, since the date of last report?
None.
32. What is the aggregate sum of receipts on account of lands, from all sources whatever, up to the present time?
None.
33. What is the amount now due the Company on lands sold, or contracted to be sold?
None.
34. Are there any terminal points or places, on your line, in or out of this

State, to and from which the larger portion of the freight transported on your lines is carried? If so, name them.
Galena, Ill.

35. Have you made any advance in the rates of freight, from stations on your lines, to such terminal points, since the enactment of chapter 57, of the laws of 1876?

36. Have you made any reductions in such rates, from any stations, since the passage of said chapter?

No

If you answer either of the questions in the affirmative, annex to your reply schedules, naming the stations, with distance and rates in force at the time, and since the passage of said chapter, on 1st, 2d, 3d and 4th class of freight, and upon flour, grain, live stock, agricultural implements, salt and coal.

37. * Have you made such advance or reduction on your rates of freight between other stations on your line? If yes, annex a schedule to your reply, showing what the advance or reduction has been on the articles above named.

No.

38. What is your present tariff per mile for passengers, both through and local?

8½c.

39. What proportion of the passengers carried by you, in this state, purchase round-trip tickets? And what proportion purchase 500-mile tickets? We do not sell any tickets good for more than one trip.

40. Have you made any advance in the rates of freight for lumber, since the passage of chapter 57, of the laws of 1876? If so, annex to your reply a schedule, naming the stations and rates in force, both at the time and since the passage of said chapter.

No.

41. Has your Company any rule governing your conductors, engineers and trainmen concerning the use of intoxicating liquors? *If so, what is it, and is it enforced?*

Have no rule, but do not employ persons who drink to excess.

* The "distance tariff," with both rates noted thereon, will be a sufficient answer.

1. Of the above accidents, those numbered as follows were caused by broken rails.
Total No....
2. Of the above accidents those numbered as follows were caused by inattention of employees:
Total No....
3. Of the above accidents those numbered as follows were caused by collisions not properly coming under 2:
Total No....
4. Of the above accidents those numbered as follows were caused by explosions:
Total No....
5. Amount paid as damages caused by fire from locomotives.

NUMBER AND KIND OF FARM-ANIMALS KILLED, AND AMOUNT OF DAMAGES PAID THEREFOR.

	Number Killed.	Amount Paid.
1. Cattle.....
2. Horses
3. Mules.....
4. Sheep.....
5. Hogs.....
6. Total

7. Amount claimed yet unsettled, or in litigation..

STATE OF ILLINOIS, *County of Jo Daviess* — ss.

Richard Barrett, President, and S. O. Stillman, Secretary, of the Galena and Southern Wisconsin Railroad Company, being duly sworn, depose and say that they have caused the foregoing statements to be prepared by the proper officers and agents of this company, and having carefully examined the same, declare them to be a true, full and correct statement of the condition and affairs of said company, on the first day of October, A. D. 1877, to the best of their knowledge and belief. Signed.

[SEAL.]

R. BARRET,
President.
S. O. STILLMAN,
Secretary.

[SEAL.]

Subscribed and sworn to before me, a notary public, this ninth day of November, A. D. 1877.

C. S. MERRICK,
Notary Public.

REPORT
OF THE
GREEN BAY AND MINNESOTA RAILROAD COMPANY,

For the year ending 30th September, 1877.

OFFICERS AND OFFICES OF THE COMPANY OPERATING.

NAMES.	OFFICE.	ADDRESS.	Salaries.
Henry Ketchum	President.....	New London ..	.....
D. M. Kelley.....	Vice-President and Gen- eral Manager.....	Green Bay.....	.....
W. J. Abrams.....	Secretary.....	Green Bay.....	.....
Norris & Chynoweth....	Solicitors.....	Green Bay.....	.....
W. R. Hancock.....	Treasurer	Green Bay.....	.....
S. B. Kenrick	Superintendent	Green Bay.....	.....
J. T. Alton	Chief Engineer.....	Green Bay.....	.....
Dan. Atwood.....	General Freight and pas- senger Agent.....	Green Bay.....	.....
Total salaries.....	.....	.....	.....

1. General offices at Green Bay.

NAMES OF DIRECTORS.	RESIDENCE.
H. Ketchum	New London.
D. M. Kelley.....	Green Bay.
W. J. Abrams.....	Green Bay.
George Sommers	Green Bay.
Fred. S. Ellis	Green Bay.
W. E. Peak	La Crosse.
E. F. Hatfield, Jr	New York City
W. W. Scranton	Scranton, Pa.

EXECUTIVE COMMITTEE.

The Board of Directors.

2. Date of annual election of Directors,
The first Monday in April.
3. Name and address of person to whom correspondence concerning this
report should be directed,
D. M. Kelly, Green Bay, Wis.

CAPITAL STOCK.

1. Capital stock authorized by charter.....	\$8,000,000 00
2. How many kinds of stock? One.	
3. Amount of common stock.....	8,000,000 00
4. Amount of preferred stock.....	
5. Total capital stock	\$8,000,000 00
6. Proportion of stock for Wisconsin*.....	
7. Rate of preference.....	
8. How much <i>common</i> stock has been issued since Septem- ber 30th, 1876	\$10,900 00
9. For what purpose? and what was received therefor?.... Local aid.	
10. How much <i>preferred</i> stock has been issued since Septem- ber 30th, 1876.....	
11. For what purpose? and what was received therefor? Nothing.	

FUNDED AND UNFUNDED DEBT.

	Total.	Wisconsin Lines.
1. Describe severally all outstanding classes of bonds, including amounts, dates of issue, interest, where and when payable.		
First mortgage	\$3,200,000 00	
Second mortgage.....	779,860 00	
2. Amount of debt not secured by mortgage?....	1,847,275 18	
3. Total funded and unfunded debt.....	\$5,827,135 18	
4. Net cash realized from bonded debt, above described	\$2,967,490 00	
5. Proportion of debt, bonded and floating, for Wisconsin		

*Unless some good reason exists to the contrary, this proportion — and all other estimates of the same character — should be for the miles of road in this state compared with the whole. If made on a different basis, please state the reasons therefor.

COST OF ROAD AND EQUIPMENT.

	Total.	Wisconsin Lines.
1. What amount has been expended for right of way, between Sept. 30, 1876, and Sept. 30, 1877?	\$3,543 78	
2. What for real estate, and for what purpose purchased? Depot grounds.....	544 40	
3. What has been expended in construction between Sept. 30, 1876, and Sept. 30, 1877? .....	.....
4. What for improvement?.....	.....
5. What for other items of expense, for construction and equipment? \$31,990 98	29,861 13	
Less amount credited construction, \$2,129.85.		
6. What amounts, if any, have been paid for roads or portions of roads, not built by company during the time mentioned?.....	.....
	\$33,949 31	
7. Total expended between Sept. 30, 1876, and Sept. 30, 1877.....	\$33,949 31	
8. Total cost of entire line, as per last report.	\$12,230,565 43	
9. Total cost of entire line to date.....	\$12,264,514 74	

**ORIGINAL COST AND PRESENT ESTIMATED VALUE OF TOTAL
PROPERTY IN THIS STATE.**

DESCRIPTION OF PROPERTY.	Total.	In Wiscon- sin.
1. What amount has been expended for grading between Sept. 30, 1876, and Sept. 30, 1877 ..	\$2,337 87	.....
2. How much for bridges.....do...	5,851 95	.....
3. How much for tunnels.....do...		.....
4. How much for iron bridges.....do...		.....
5. How much for wooden bridges....do...		.....
6. How much for ties and tying .....do...	6,628 12	.....
7. How much for iron rails. No. miles 52 Lbs. wt. per yard.....	5,219 89	.....
8. How much for steel rail No. miles... Lbs. weight per yard.....Nothing		.....
9. How much for chains, spikes, fish-bar..do...		.....
10. How much for laying track.....do...	429 56	.....
11. How much for passenger and freight stations, fixtures and furniture, as per schedule. No. stations....	478 11	.....
12. How much for engine and car shops. No...		.....
13. How much for machine shops. No....do...		.....
14. How much for machinery and fixtures.do...		.....
15. How much for engine houses. No. ....do...	1,770 28	.....
16. How much for car sheds. No... ..do...		.....
17. How much for turn tables. No... ..do...	18 50	.....
18. How much for track and other scales. No...	5 25	.....
19. How much for wood sheds and water stations. No... ..	25 00	.....
20. How much for fencing. No. miles... ..	5,992 42	.....
21. How much for elevators. No... ..	507 49	.....
22. How much for locomotives and tenders. No... Av. wt. tons....		.....
23. How much for snow plows, as per schedule. No... Av. wt. tons....		.....
24. How much for wreckers. No.. Av. wt. tons		.....
25. How much for passenger cars, 1st class. No... Av. wt. tons....		.....
26. How much for passenger cars, 2d class. No. .. Av. wt. tons....		.....
27. How much for baggage cars. No.. Av. wt. tons....		.....
28. How much for mail cars. No.. Av. wt. tons		.....
29. How much for exp. cars. No.. Av. wt. tons		.....
30. How much for freight cars, closed. No. Av. wt. tons ...		.....
31. How much for platf'm cars. No.. Av. wt. tons		.....
32. How much for hand cars. No.. Av. wt. tons		.....
33. How much for machinery and tools to accom- pany trains, repair track, etc., used by track- men or others.....		.....
34. How much for all other property not enum'd.	6,824 72	.....
35. Total amount expended between Sept. 30, 1876, and Sept. 30, 1877.....	\$36,079 16	.....

CHARACTERISTICS OF ROAD.

LENGTH OF ROAD.	MILES.		Weight of rail per yard.
	Entire Length.	Length in Wis- consin.	
1. Length of main line of road from Green Bay, Wis., to Winona, Minn	213.9	213.9	.....
2. Length of double track on main line.....	.....	.....	.....
*BRANCHES — Name each.			
3. Length of branch .....	.....	.....	.....
From — to —. Length of double track on branch .....	.....	.....	.....
4. La Crosse, length of branch	29.7	29.7	.....
From — to —. Length of double track on branch .....	.....	.....	.....
5. Length of branch .....	.....	.....	.....
From — to —. Length of double track on branch .....	.....	.....	.....
6. Length of branch .....	.....	.....	.....
From — to —. Length of double track on branch .....	.....	.....	.....
7. Total length of main line and branches.....	243.6	243.6	.....
8. Aggregate length of tracks operated by this company, computed as single track.			
9. Aggregate length of sidings and other track not above enumerated, 12 miles.			
10. Number of junction stations, 7.			
11. What is the gauge of your lines? Four feet eight and a half inches.			

DOINGS OF THE YEAR IN TRANSPORTATION.

CHARACTER OF SERVICE.	Number of persons Employed.	Average salary per annum.
1. Division and assistant superintendents.....	.....	.....
Clerks in all offices.....	9	\$815 55
Master and assistant mechanics	3	983 47
Conductors	9	818 33
Engineers	11	1,029 52
Brakemen	17	540 00
Flagmen, switch-tenders, gate-k'pers and watchmen	1	540 00
Station agents.....	83	544 14
Section men	101	410 83
Laborers (bridge carpenters and shop mechanics) .	87	590 24
Other employees (road master, dock master, supt. bridge repairs, janitor, wood and tie agent, east- ern agent and traveling agent	7	909 94

* This includes leased lines — designate them as such — the earnings, expenses, etc., of which are given in this report.

Doings of the Year in Transportation — continued.

MILEAGE AND TONNAGE.	MILES.	
	Whole line.	In Wis-consin.
2. Number of miles run by passenger trains	152,596	.....
3. Number of miles run by freight and mixed trains	148,894	.....
4. Number of miles run by construction and other trains	58,496	.....
5. Total mileage	354,976	.....
6. Total number of passengers carried	55,505	.....
7. Total number tons freight carried one mile	11,834,301	.....
8. Total number passengers carried one mile	2,801,287	.....
9. Average distance traveled by each passenger	41½	.....
Miles per hour.		
10. The highest rate of speed allowed for express passenger trains	25	.....
11. Schedule rates of same, including stops	20	.....
12. The highest rate of speed allowed for mail and accommodation trains	25	.....
13. Schedule of same, including stops	20	.....
14. The highest rate of speed allowed for freight trains	15	.....
15. Schedule rate of same, including stops	8	.....
16. Amount of freight carried per car	20,000 lbs.	.....
17 TOTAL FREIGHT IN TONS.		
Grain	26,050	.....
Flour	2,438	.....
Provisions	1,265	.....
Salt, cement, water-lime and stucco	2,508	.....
Manufactures, including agricultural imple-ments, furniture and wagons	1,517	.....
Live stock	172	.....
Lumber and forest products	45,583	.....
Iron, lead and mineral products	696	.....
Stone, brick, lime, sand, etc	5,870	.....
Coal	8,450	.....
Merchandise and other articles	7,838	.....
Total tons	96,907	.....

EARNINGS DURING THE YEAR ENDING SEPTEMBER 30, 1877.

MONTHLY EARNINGS FROM ALL SOURCES.

MONTHS.	PASSENGERS.		FREIGHT.		MAILS, EXPR'S, AND ALL OTH'R SOURCES.		TOTALS.	
	Whole Line.	Wis	Whole Line.	Wis	Whole Line.	Wis	Whole Line.	Wis
1876.								
October	\$8,152 18	...	\$35,447 85	....	\$1,595 28	....	\$45,194 76	....
November....	9,430 71	....	22,551 64	....	2,747 16	....	34,729 51	....
December....	7,464 75	....	15,638 17	....	3,914 18	....	27,017 10	....
1877.								
January	4,633 72	....	13,106 05	....	801 15	....	18,540 92	....
February....	5,060 67	....	11,702 29	....	547 84	....	17,310 80	....
March	6,345 30	....	11,638 03	....	5,065 21	....	23,048 54	....
April	9,060 03	....	10,268 17	....	1,335 95	....	20,664 15	....
May	6,861 89	....	15,076 11	....	680 51	....	22,618 51	....
June	6,475 69	....	14,116 28	....	3,319 43	....	23,911 40	....
July	7,427 61	....	14,334 71	....	959 55	....	22,721 87	....
August.....	7,412 60	....	13,475 31	....	763 17	....	21,651 08	....
September....	7,846 66	....	40,484 86	....	5,053 92	....	53,385 44	....
Totals....	\$36,171 76	....	217,838 97	....	\$26,783 35	....	330,794 08	....

1. Earnings per mile of road .. \$1,357 94
2. Earnings per mile of road on freight 885 21
3. Earnings per mile on passengers..... 353 75
4. Earnings per train-mile run, on freight..... 1.463
5. Earnings per train mile run, on passengers..... 5.645
6. Of the earnings of the entire line, what is the ratio of the passenger to the freight? As..... 28 to 72
7. Average gross earnings per mile [243.6 miles] of road, exclusive of sidings..... \$1,358 06
8. Average net earnings per mile [243.6 miles] of road, exclusive of sidings \$135 75
9. Average net earnings per train-mile 93.18

EXPENSES DURING THE YEAR ENDING SEPTEMBER 30, 1877.

PAYMENTS FOR CURRENT AND OPERATING EXPENSES.

		Belonging to Whole Line.	Belong- ing to Wiscon- sin.
1. Maintenance of way —			
Repairs of track, including new and re-rolled iron rail in place of old iron rails.....		\$49,081 02	.....
Repairs of bridges		4,722 28	.....
Repairs of fences.....			.....
New steel rail, valued only as iron rail*.....			.....
Other expenses on way.....			.....
2. Maintenance of buildings.....		\$2,264 84	.....
3. Maintenance of rolling stock —			
Locomotives	\$14,121 47		.....
Passeng'r, baggage, mail and exp. cars } .....			.....
Freight cars	30,470 11		.....
Shop tools and machinery.....	2,281 26	46,872 84	.....
4. Conducting transportation, and general expenses —			
Management and general office.....	14,984 55		.....
Foreign agency and advertising.....	1,813 02		.....
Agents and station service	26,533 92		.....
Conductors, baggage and brakemen.....	14,686 51		.....
Engineers, firemen and wipers.....	21,946 55		.....
Train and station supplies	2,120 00		.....
Fuel consumed.....	32,949 11		.....
Oil and waste.....	4,947 39		.....
Personal expenses.....			.....
Damage to persons.....	2 00		.....
Damage to property.....			.....
Loss and damage to freight & baggage }	1,579 86		.....
Legal expenses.....	3,217 90		.....
Other general operating expenses ..	14,452 28	188,733 09	.....
5. Current expenses —			
For taxes ..	2,178 89		.....
For insurance.....	1,012 53		.....
Renewals, iron, etc.	20,086 56		.....
		23,277 98	
Lease or privilege of other roads whose earnings are included in this report, giving name and amounts paid L. C. T. & P. R. R., C & N. W. Ry.	82,771 82	82,771 82	.....
6. Total current operating expenses, being .90002 per cent. of earnings		297,723 37	.....
7. Average operating expenses per mile of road, exclusive of sidings.....		1,222 18	.....
8. Average operating expenses per train-mile.....		.8387	.....
9. Excess of earnings over operating and current expenses		33,070 71	.....
10. Cost of maintaining track and bridges per mile run .....		.1579	.....
11. Cost of repairs of engines per mile run.....		.0898	.....
12. Cost of engineers and firemen per mile run.....		.0615	.....
13. Cost of oil and waste per mile run.....		.0139	.....
14. Cost of fuel per mile run .....		.0928	.....

* In substituting steel rail for iron rail, the cost of iron rail only should be charged to operating account, and the excess carried to extraordinary expenses. (See next page.)

Expenses, etc. — continued.

PAYMENTS IN ADDITION TO OPERATING EXPENSES.

	Belonging to Whole Line.	Belonging to Wisconsin.
15. New steel rails, excess of cost over iron rail, old track		
16. New rail on new track	\$5,219 89	
17. New equipment		
18. New bridges and culverts (not including re- placements)	5,851 95	
19. Real estate bought during the year	544 40	
20. New tools and machinery		
21. New buildings	2,268 89	
22. Total paid for new investment on the length of the company's lines since date of last report in addition to above	22,194 53	
23. Amounts paid in cash, stock, bonds, or other- wise, for extensions, new lines and branches, during the past year — specify particulars		
Total new investments	\$36,079 16	
24. For interest on bonds etc.	\$176,236 19	
25. Dividends — rate — per cent. — on preferred stock		
26. Dividends — rate — per cent. — on common stock		
Total payments in addition to operating ex- penses		
28. What amount of money have you expended for building roads out of the state, from proceeds arising from business done on your roads in this state?		

29. How was amount of dividends paid the past year — cash, stock or other
wise? Specify amounts and manner of payment.

1. What regulations govern your employees in regard to crossings of other railroads, and are they found to be sufficient?
State laws sufficient.
2. What regulations govern your employees in regard to crossings of public highways? And are these regulations found to be sufficient?
State laws sufficient.
3. What platform and coupler between passenger cars do you use?
Ordinary platform and plain wrought iron coupler.
4. What kind of brakes do you use on passenger trains?
Common hand brake.

U. S. MAIL.

5. What is the compensation paid you by the U. S. government for the transportation of its mails, and on what terms of service?
\$50 per mile. Service six times a week.

EXPRESS COMPANIES.

6. What express companies run on your road, and on what terms, and what conditions as to rates, use of track, machinery, repairs of cars, etc.; what kind of business is done by them, and do you take their freights at the depot, or at the office of such express companies?
American Express Co, \$1.16 per 100 lbs. on freight averaged as carried over whole length of road. General express business at depots.

TRANSPORTATION COMPANIES.

7. What freight and transportation companies run on your road and on what terms, and on what conditions as to rates, use of track, machinery, repairs of cars, etc.? Do they use the cars of your company, or those furnished by themselves, and are their cars or their freight given any preference in speed or order of transportation, and if so, in what particular?

SLEEPING CARS.

8. Do sleeping or dining cars run on your road, and if so, on what terms are they run, by whom are they owned, and what charges are made in addition to the regular passenger rates?
No.

ADDITIONAL QUESTIONS.

9. Have you acquired any additional chartered rights or privileges under the special or general laws of this state, directly or indirectly, since your last report?
No.
10. Have you acquired any such additional rights or privileges under the laws, general or special, of any other state, since your last report?
No.
11. Have you acquired any lines in or out of this state, by purchase, lease, consolidation, or otherwise, since your last report? If yes, give full particulars relating thereto, including length of line, location thereof, at what point or place connection is made with old line; terms of purchase or lease, and brief statement of reasons for making such purchase or lease, and whether made by consent of stockholders?

12. Do you, by purchase or ownership of capital stock, or in any other manner, control any other railroad corporation owning or having under its control a parallel or competing line?
No.
13. Does any officer of your company act as the officer of any other railroad corporation, owning or having the control of a parallel or competing line?
No.
14. What running arrangements have you with other railroad companies, setting forth the contracts for the same, made since the date of your last report?
Nothing new.
15. Have you such arrangements with other railroad companies crossing or connecting with your lines, as enable passengers to make close connections with trains on such lines, at all such crossing or connecting points? If so, when were such arrangements made? If not at *all* such points, state at *what* points such connections are not made, and the reasons therefor.
At all points the best possible (under all the circumstances) connections are made.
16. Have any swamp or other state lands been granted your company since the date of your last report? If so, how many acres?
None.
17. Have any United States lands been granted to your company, directly or indirectly, since the date of your last report? What number acres received by your company, directly or indirectly, since date of last report?
None.
18. What number acres sold and conveyed since date of your last report?
None.
19. Average price per acre realized?
20. To what corporations have you sold land? How much, and what price, since the date of your last report?
21. Number of acres now held by company?
None.
22. Average price asked for lands now held by company?
23. Value of donations of right of way or other real estate received since the date of your last report?
None.
24. Amount of city, county and town aid granted to company in exchange for stock, or otherwise? Specify particulars since date of last report.
None.
25. Total cash amount realized from such aid since date of your last report?
26. Amount of land sold, but not conveyed, under contracts now in force?
None.
27. The whole amount of cash, principal and interest, received for lands hitherto sold and conveyed, since date of last report?
None.
28. Whole amount of cash received, principal and interest, on outstanding contracts, in force since date of last report?
None.
29. Whole amount of cash received, principal and interest, on contracts forfeited, since date of last report?
None.
30. Whole amount of cash received for stumpage, trespasses, etc., since date of last report?
None.
31. What have been your total receipts from lands sold, and contracted to be sold, since the date of last report?
None.
32. What is the aggregate sum of receipts on account of lands, from all sources whatever, up to the present time?
Nothing.

33. What is the amount now due the Company on lands sold, or contracted to be sold?
Nothing.
34. Are there any terminal points or places, on your line, in or out of this State, to and from which the larger portion of the freight transported on your lines is carried? If so, name them.
Green Bay, Wis.; Eastmoor, Wis.; La Crosse, Wis.; Winona, Minn.
35. Have you made any advance in the rates of freight, from stations on your lines, to such terminal points, since the enactment of chapter 57 of the laws of 1876?
Yes; see tariffs on file in office of R. R. commissioner.
36. Have you made any reductions in such rates, from any stations, since the passage of said chapter?
If you answer either of the questions in the affirmative, annex to your reply schedules, naming the stations, with distance and rates in force at the time, and since the passage of said chapter, on 1st, 2d, 3d and 4th class of freight, and upon flour, grain, live stock, agricultural implements, salt and coal.
Schedules annexed.
37. * Have you made such advance or reduction on your rates of freight between other stations on your line? If yes, annex a schedule to your reply, showing what the advance or reduction has been on the articles above named.
Yes; as per Tariffs on file in office of Railroad Commissioner.
38. What is your present tariff per mile for passengers, both through and local?
Four (4) cts., except where shorter lines reduce our rates, and except for passengers buying round trip tickets.
39. What proportion of the passengers carried by you, in this state, purchase round-trip tickets? And what proportion purchase 500-mile tickets?
Round Trips .05 $\frac{1}{4}$ per cent. Five hundred and 1,000 mile tickets, $\frac{1}{4}$ per cent.
40. Have you made any advance in the rates of freight for lumber, since the passage of chapter 57 of the laws of 1876? If so, annex to your reply a schedule, naming the stations and rates in force, both at the time and since the passage of said chapter.
Yes; as per Tariffs on file in the office of the Railroad Commissioner.
41. Has your Company any rule governing your conductors, engineers and trainmen concerning the use of intoxicating liquors? If so, what is it, and is it enforced?
Employees not allowed to use intoxicating liquors.

* The "distance tariff," with both rates noted thereon, will be a sufficient answer.

ACCIDENTS.

[illegible]

1. Of the above accidents, those numbered as follows were caused by broken rails.
Total No....
2. Of the above accidents those numbered as follows were caused by inattention of employees:
Total No.....
3. Of the above accidents those numbered as follows were caused by collisions not properly coming under 2:
Total No.....
4. Of the above accidents those numbered as follows were caused by explosions:
Total No.....
5. Amount paid as damages caused by fire from locomotives....

NUMBER AND KIND OF FARM-ANIMALS KILLED, AND AMOUNT OF DAMAGES PAID THEREFOR.

	Number Killed.	Amount Paid.
1. Cattle and calves.....	52	\$388 00
2. Horses and colts.....	8	160 00
3. Mules		
4. Sheep.	4	8 00
5. Hogs.....	8	22 45
6. Total	72	\$573 45

7. Amount claimed yet unsettled, or in litigation. \$881.05

STATE OF WISCONSIN, }
County of Brown. } ss.

David M. Kelly, Vice President, and W. R. Hancock, Treasurer, of the Green Bay and Minnesota Railroad Company, being duly sworn, depose and say that they have caused the foregoing statements to be prepared by the proper officers and agents of this company, and having carefully examined the same, declare them to be a true, full and correct statement of the condition and affairs of said company, on the first day of October, A. D. 1877, to the best of their knowledge and belief.

[SEAL.]

Signed.
DAVID M. KELLY.
W. R. HANCOCK.

Subscribed and sworn to before me, a notary public, this 3d day of December, A. D. 1877.

[SEAL.]

T. P. BINGHAM,
Notary Public, Brown Co., Wis.

REPORT OF THE MILWAUKEE, LAKE SHORE & WESTERN RAILWAY COMPANY

For the year ending 30th September, 1877.

OFFICERS AND OFFICES OF THE COMPANY OPERATING.

NAMES.	OFFICES.	ADDRESS.	SAL'RIES
F. W. Rhinelanders.....	President.....	New York.....	.....
Wm. H. Gulon.....	1st Vice President.....	New York.....	.....
Sam'l S. Sands.....	Secretary.....	New York.....	.....
Cottrill & Cary.....	Solicitors.....	Milwaukee.....	.....
Gordon Norris.....	Treasurer.....	New York.....	.....
.....	General Manager.....	.....	.....
H. G. H. Reed.....	General Superitendent..	Milwaukee.....	.....
H. G. H. Reed.....	Chief Engineer.....	Milwaukee.....	.....
H. F. Whitcomb.....	General Ticket Agent..	Milwaukee.....	.....
H. F. Whitcomb.....	General Freight Agent..	Milwaukee.....	.....
Jno. D. McLeod.....	Auditor.....	Milwaukee.....	.....
Total Salaries.....	.....	.....	.....

1. General offices at Milwaukee, Wis., 438 East Water street.

NAMES OF DIRECTORS.	RESIDENCE.
F. W. Rhinelanders.....	New York.
Adam Norris.....	New York.
Sam'l S. Sands.....	New York.
Charles Dana.....	New York.
Hy. B. Hammond.....	New York.
Wm. H. Gulon.....	New York.
Morris K. Jessup.....	New York.
W. K. Hinman.....	New York.
Gordon Norris.....	New York.
Isaac H. Knox.....	St. Louis.
D. Parish.....	Philadelphia.
Joseph Vilas.....	Manitowoc.
Jas. H. Mead.....	Sheboygan.

2. Date of annual election of directors,
Second Wednesday in June.
3. Name and address of person to whom correspondence, concerning this
report, should be directed,
Jno D. McLeod, Auditor.

CAPITAL STOCK.

1. Capital stock authorized by charter. \$6,000,000.
2. How many kinds of stock?
Two.
3. Amount of common stock \$1,000,000 00
4. Amount of preferred stock 5,000,000 00
5. Total capital stock \$6,000,000 00
6. *Proportion of stock for Wisconsin.....
7. Rate of preference?
Preferred stock to have a dividend of 7 per cent. per annum from the
net earnings, after payment of interest on first mortgage bonds, and
before dividends are made upon the common stock, with the right to
reserve a reasonable working capital before declaring or paying a
dividend on the preferred stock.
8. How much common stock has been issued since Sept. 30, 1876?
None issued.
9. For what purpose? and what was received therefor?
None issued.
10. How much preferred stock has been issued, since September. 30, 1876?
None issued.
11. For what purpose? and what was received therefor?
None issued.

FUNDED AND UNFUNDED DEBT.

	Total.	Wisconsin lines.
1. Describe severally all outstanding classes of bonds, including amount, dates of issue, in- terest, where and when payable. 533 first mortgage bonds of \$1,000 each, dated Dec. 20, 1875, maturing Dec. 1, 1905, bear- ing interest at 7 per cent. per annum in cur- rency, payable semi-annually on June 1, and Dec. 1		\$533,000 00
2. Amount of debt not secured by mortgage. Including liabilities incurred on account of Appleton & New London extension, and 30 days current operating.....		\$152,215 70
3. Total funded and unfunded debt.....		<u>\$685,215 70</u>
4. Net cash realized from bonded debt, above de- scribed		\$461,524 73
5. Proportion of debt, bonded and floating, for Wisconsin.....		<u>\$685,215 70</u>

* Unless some good reason exists to the contrary, this proportion—and all other estimates of the same character—should be for the miles of road in this state compared with the whole. If made on a different basis please state the reasons therefor.

COST OF ROAD AND EQUIPMENT.

	Total.	Wisconsin lines.
1. What amount has been expended for right of way, during the year ending, Sept. 30, 1877?		\$5,626 74
2. What for real estate, and for what purpose purchased? Nothing.		
3. What has been expended in construction during the year ending, Sept. 30, 1877? For Appleton & New London extension, including right of way		161,550 23
4. What for improvement?		7,998 71
5. What for equipment?		87,788 92
6. What amounts, if any, have been paid for roads or portions of roads not built by company during the time mentioned? Nothing.	.	
7. Total expended during the year ending, Sept. 30, 1877.....		\$212,914 59
8. Total cost of entire line, as per last report.....		6,462,324 95
9. Total cost of entire line, to date.....		6,675,289 54

**ORIGINAL COST AND PRESENT ESTIMATED VALUE OF TOTAL
PROPERTY IN THIS STATE.**

DESCRIPTION OF PROPERTY.	Total.	In Wisconsin.
1. What amount has been expended for grading between Sept. 30, 1876, and Sept. 30, 1877....		
2. How much for bridges.....		
3. How much for tunnels.....		
4. How much for iron bridges.....		
5. How much for wooden bridges.....		
6. How much for ties and tying.....		
7. How much for iron rail, No. miles, — lbs. wt. per yard		
8. How much for steel rail, No. miles, — lbs. wt. per yard		
9. How much for chains, spikes, fish-bar, etc.....		
10. How much for laying track		
11. How much for passenger and freight stations, fixtures and furniture, as per schedule, No. stations		
12. How much for engine and car shops, No. —		
13. How much for machine shops, No. —		
14. How much for machinery and fixtures.....		
15. How much for engine houses, No. —		
16. How much for car sheds, No. —		
17. How much for turn tables, No. —		
18. How much for track and other scales, No. —		
19. How much for wood sheds and water stations, No. —		
20. How much for fencing, — No. miles, — ..		
21. How much for elevators, No. —		
22. How much for locomotives and tenders, No. 12. Av. wt. tons, 30		
23. How much for snow plows, as per schedule, No. 2. Av. wt. tons, —		
24. How much for wreckers, No. — Av. wt. tons, —		
25. How much for passenger cars, 1st class, No. 4. Av. wt. tons, —		
26. How much for passenger cars, 2d class, No. 1. Av. wt. tons, —		
How much for passenger and baggage combination, No. —		
27. How much for baggage cars, No. — Av. wt. tons, —		
28. How much for mail cars, No. 2. Av. wt. tons, —		
29. How much for express cars, No. — Av. wt. tons, —		
How much for cabooses, No. 4		
30. How much for freight cars, closed, No. 157. Av. wt. tons, —		
31. How much for platform cars, No. 55. Av. wt. tons, —		
32. How much for hand cars and push cars, No. 45. Av. wt. tons,		
33. How much for machinery and tools to accompany trains, repair track, etc., used by trackmen or others		
34. How much for all other property not enumerated		
35. Total amount expended between Sept. 30, 1876, and Sept. 30, 1877		

Cannot give this detail.

CHARACTERISTICS OF ROAD.

LENGTH OF ROAD.	MILES.		Weight of Rail per yard.
	Entire Length.	Length in Wis- consin.	
1. Length of main line of road from Milwaukee to New London.....	140.7	.....	.....
2. Length of double track on main line.....	.....	.....	.....
* BRANCHES — Name each.			
3. Length of branch..... From Manitowoc to Two Rivers. Length of double track on branch	6.0	146.7	50 to 56 lbs.
4. Length of branch..... From — to — length of double track on branch .....	.....	.....	.....
5. Length of branch..... From — to — length of double track on branch .....	.....	.....	.....
6. Length of branch..... From — to — length of double track on branch .....	.....	.....	.....
7. Total length of main line and branches ..	.....	146.7	.....

8. Aggregate length of tracks operated by this company, computed as single track.
151 $\frac{1}{8}$ miles.
9. Aggregate length of sidings and other track not above numerated.
5 $\frac{1}{8}$ miles.
10. Number of junction stations.
Six. Milwaukee, Lake Shore Junction, Sheboygan, Forest Junction, Appleton and New London.
11. What is the gauge of your lines?
4 feet 8 $\frac{1}{4}$ inches.

* This includes leased lines — designate them as such — the earnings, expenses, etc., of which are given in this report.

DOINGS OF THE YEAR IN TRANSPORTATION.

CHARACTER OF SERVICE.	No. of persons employed.	Average salary per annum.
1. Division and assistant superintendents.....	1	\$1,500 00
Clerks in all offices.....	21	499 92
Master and assistant mechanics.....	16	619 83
Conductors	8	810 00
Engineers	9	1,011 87
Firemen.....	9	540 00
Brakemen	15	540 00
Flagmen, switch-tenders, gate-keepers and watchmen.....	18	528 00
Station agents.....	21	552 00
Section men and laborers.....	89	412 92
Other employees, mail carries, wood train men, etc.....	32	330 60

Doings of the Year in Transportation — continued.

MILEAGE AND TONNAGE.	MILES.	
	Whole line.	In Wisconsin.
2. Number of miles run by passenger trains		87,185
3. Number of miles run by freight and mixed trains		140,096
4. Number of miles run by construction and other trains		71,499
5. Total mileage		298,780
6. Total number of passengers carried		66,265½
7. Total number tons freight carried one mile ..		6,036,488,888
8. Total number passengers carried one mile. ...		2,110,044
9. Average distance traveled by each passenger.		31½ miles.
Miles per hour.		
10. The highest rate of speed allowed for express passenger trains carrying mail	35	
11. Schedule rates of same, including stops	20	
12. The highest rate of speed allowed for accommodation trains	18	
13. Schedule of same, including stops ..	12	
14. The highest rate of speed allowed for freight trains	15	
15. Schedule rate of same, including stops	12	
16. Amount of freight carried per car		
17. TOTAL FREIGHT IN TONS.	Tons.	Pounds.
Grain	20,032	1,390
Flour	5,076	80
Provisions	5,985	1,366
Salt, cement, water lime and stucco	949	1,220
Manufactures, including agricultural implements, furniture and wagons	11,174	977
Live stock	487	370
Lumber and forest products	24,820	1,555
Iron, lead, and mineral products	8,030	990
Stone, brick, lime, sand, etc	5,612	368
Coal	837	1,050
Merchandise and other articles	14,893	1,966
Total tons	97,900	1,382

EARNINGS DURING THE YEAR ENDING SEPTEMBER 30, 1877.

MONTHLY EARNINGS FROM ALL SOURCES.

MONTHS.	PASSENGERS.		FREIGHT.		MAILS, EXPRESS, AND ALL OTHER SOURCES.		TOTALS.	
	Whole line.	Wisconsin	Whole line.	Wisconsin	Whole line.	Wisconsin	Whole line.	Wisconsin
1876								
October		\$5,637 52		\$13,748 25		\$999 26		\$20,385 03
November		4,876 19		9,736 18		994 58		15,606 95
December		5,506 04		12,257 95		1,046 87		18,810 36
1877								
January		5,186 83		10,955 15		930 66		17,122 64
February		5,434 55		9,014 60		999 54		15,448 69
March		6,034 10		10,973 44		803 14		17,809 68
April		6,873 92		10,653 67		801 60		18,334 19
May		5,978 16		11,018 11		811 87		17,808 14
June		6,457 49		9,803 94		838 09		17,098 52
July		6,923 56		8,084 78		810 65		15,768 99
August		6,519 35		8,275 98		835 58		15,631 41
September		6,399 93		16,802 56		903 75		24,106 24
Totals		\$71,828 14		\$181,278 61		\$10,824 09		\$213,930 84

1. Earnings per mile of road..... \$1,458 29
2. Earnings per mile of road on freight..... 894 87
3. Earnings per mile on passengers..... 489 63
4. Earnings per train-mile run, on freight..... 43 $\frac{11}{100}$ c.
5. Earnings per train-mile run, on passengers..... 24 $\frac{11}{100}$ c.
6. Of the earnings of the entire line, what is the ratio of the passenger to the freight?..... as 35 to 65
7. Average gross earnings per mile [146.7 miles] of road, exclusive of sidings..... \$1,458 29
8. Average net earnings per mile [146.7 miles] of road, exclusive of sidings..... 343 68
9. Average net earnings per train-mile..... 16 $\frac{11}{100}$ c.

EXPENSES DURING THE YEAR ENDING SEPTEMBER 30, 1877.

PAYMENTS FOR CURRENT AND OPERATING EXPENSES.	Belonging to whole line	Belonging to Wis.
1. Maintenance of way:		
Repairs of track, including new and rerolled iron rail in place of old iron rail.....		\$38,950 46
Repairs of bridges.....		269 54
Repairs of fences.....		
New steel rail, valued only as iron rail*.....		
Other expenses on way.....		
2. Maintenance of buildings.....		872 64
3. Maintenance of rolling stock.....		
Locomotives..... \$3,973 78		
Passenger, baggage, mail and express cars..... 2,718 97		
Freight cars..... 2,783 42		
Shop tools and machinery..... 921 09		
		10,897 26
4. Conducting transportation, and general expenses:		
Management and general office. \$21,961 36		
For printing, advertising and stationery..... 5,162 03		
Agents and station service..... 26,718 74		
Conductors, baggage and brakemen..... 12,909 82		
Engineers, firemen and wipers. 16,885 54		
Train and station supplies..... 1,096 18		
Fuel consumed..... 16,626 25		
Oil and waste..... 1,948 88		
Personal expenses (included in management).....		
Damage to persons..... 83 00		
Damage to property..... 657 55		
Loss and damage to fr't and bag..... 94 78		
Legal expenses..... 3,606 85		
Other general operati'g expenses..... 4,498 25		
		112,248 13
5. Current expenses:		
For taxes..... 754 24		
For insurance..... 520 00		
		1,274 24
Lease or privilege of other roads whose earnings are included in this report, giving name and amounts paid..... None.		\$168,512 27
6. Total current operating expenses, being 76.43 per cent. of earnings.....		
7. Average operating expenses per mile of road, exclusive of sidings.....		\$1,114 63
8. Average operating expenses per train mile....		54.70 c.
9. Excess of earnings over operating and current expenses.....		\$50,418 57
10. Cost of maintaining track and bridges per mile run.....		13.14 c.
11. Cost of repairs of engines per mille run.....		1.70 c.
12. Cost of engineers and firemen per mile run....		5.48 c.
13. Cost of oil and waste per mile run....		1.00 c.
14. Cost of fuel per mile run.....		5.48 c.

*In substituting steel rail for iron rail, the cost of iron rail only should be charged to operating account, and the excess carried to extraordinary expenses. (See next page.)

Expenses, etc. — continued.

PAYMENTS IN ADDITION TO OPERATING EXPENSES.

	Belonging to whole line.	Belonging to Wisconsin.
15. New steel rail, excess of cost over iron rail, old track		
16. New rail on new track		
17. New equipment		\$87,788 92
19. New bridges and culverts (not including replacements)		
19. Real estate bought during the year. Right of way between Milwaukee and Appleton		5,626 74
20. New tools and machinery		1,740 67
21. New buildings		701 73
Other purposes		6,556 31
22. Total paid for new investment on the length of the company's line since date of last report		\$52,864 87
23. Amounts paid in cash, stock, bonds, or otherwise, for extensions, new lines and branches, during the past year — specify particularly. We have invested in our extension from Appleton to a point one and one-half miles above New London (22½ miles, main track), from proceeds of sale of our first mortgage bonds, and loans on bonds, the sum of		\$161,550 22
Total new investment		\$218,914 59
24. For interest on bonds		\$33,145 00
25. Dividends—rate — per cent. — on preferred stock. None		
26. Dividends—rate — per cent. on common stock. None		
27. Total payments in addition to operating expenses		\$247,059 59
28. What amount of money have you expended for building roads out of the state, from proceeds arising from business done on your roads in this state? None		
29. How was amount of dividends paid the past year — cash, stock or other- wise? Specify amounts and manner of payment. None paid.		

GENERAL BALANCE SHEET, 1st OF OCTOBER, 1877.

ASSETS.		LIABILITIES.	
	AMOUNT.		AMOUNT.
Cost of road and equipment.....		Capital stock preferred.....	\$5,000,000 00
Capitol stock — preferred — "in trust".....	\$6,675,239 54	Capital stock, common.....	1,000,000 00
Shop material and fuel on hand.....	55,749 84	Funded debt, 1st mortgage bonds.....	538,000 00
Station agents and conductors.....	4,325 42	Unfunded debt.....	167,147 88
U. S. Gov't, Am. Ex. Co., and various persons..	3,037 37	Income	50,099 10
John D. McLeod, cashier.....	3,497 23	Total.....	\$6,750,246 93
Total.....	\$8,397 53		
	\$0,750,246 93		

1. What regulations govern your employees in regard to crossings of other railroads, and are they found to be sufficient?
All trains must come to full stop and within four hundred feet of the same. The train arriving and stopping first crosses ahead, at a speed not exceeding six miles an hour. Regulations sufficient.
2. What regulations govern your employees in regard to crossings of public highways? And are these regulations found to be sufficient?
The engineer must sound the whistle (not more than two seconds) 80 rods before crossing a highway, and the bell must be rung eighty rods before crossing a highway, and until it is passed. Regulations sufficient.
3. What platform and coupler between passenger cars do you use?
The Miller Platform and Coupler on express trains.
The ordinary platform and coupler on all other trains.
4. What kind of brakes do you use on passenger trains?
The ordinary brakes.

U. S. MAIL.

5. What is the compensation paid you by the U. S. government for the transportation of its mails, and on what terms of service?
\$8,377.44 per annum, for distributing daily, Sundays excepted, one distributing mail each way between Milwaukee and Two Rivers, and the same daily between Manitowoc and New London, and one bag mail daily each way between Milwaukee and Two Rivers.

EXPRESS COMPANIES.

6. What express companies run on your road, and on what terms, and what conditions as to rates, use of track, machinery, repairs of cars, etc.; what kind of business is done by them, and do you take their freights at the depot, or at the office of such express companies?
The American Express Co., who pay us a specific rate per 100 pounds, delivering their freights at our depot.

TRANSPORTATION COMPANIES.

7. What freight and transportation companies run on your road, and on what terms, and on what conditions as to rates, use of track, machinery, repairs of cars, etc.? Do they use the cars of your company, or those furnished by themselves, and are their cars or their freight given any preference in speed or order of transportation, and if so, in what particular?
No special Co., nor discrimination as to speed, etc.

SLEEPING CARS.

8. Do sleeping or dining cars run on your road, and if so, on what terms are they run, by whom are they owned, and what charges are made in addition to the regular passenger rates?
None in use.

ADDITIONAL QUESTIONS.

9. Have you acquired any additional chartered rights or privileges under the special or general laws of this state, directly or indirectly, since your last report?
None, except that we have pursuant to law completed our extension from the city of Appleton to a point 1 1/2 miles beyond the village of New London. 22 1/2 miles in all.

10. Have you acquired any such additional rights or privileges under the laws, general or special, of any other state, since your last report?
None.
11. Have you acquired any lines in or out of this State, by purchase, lease, consolidation or otherwise, since your last report? If yes, give full particulars relating thereto, including length of line, location thereof, at what point or place connection is made with old line; terms of purchase or lease, and brief statement of reasons for making such purchase or lease, and whether made by consent of stockholders?
We have not.
12. Do you, by purchase or ownership of capital stock, or in any other manner, control any other railroad corporation owning or having under its control a parallel or competing line?
We do not.
13. Does any officer of your company act as the officer of any other railroad corporation, owning or having the control of a parallel or competing line?
No.
14. What running arrangements have you with other railroad companies, setting forth the contracts for the same, made since the date of your last report?
We pay the Chicago and Northwestern R'y Co. for the use of their track from Lake Shore Junction to Milwaukee, and for terminal facilities at Milwaukee, seventy-five per cent. of the gross earnings thereon.
15. Have you such arrangements with other railroad companies crossing or connecting with your lines, as enable passengers to make close connections with trains on such lines, at all such crossing or connecting points? If so, when were such arrangements made? If not at all such points, state at what points such connections are not made, and the reasons therefor?
Close connections have always been made with other roads crossing and connecting with ours, so as to best accommodate the traveling public. Have had no complaints.
(NOTE. — For particulars, please see enclosed time card in force.)
16. Have any swamp or other State lands been granted your Company since the date of your last report? If so, how many acres?
No.
17. Have any United States lands been granted to your Company, directly or indirectly, since the date of your last report? What number acres received by your Company, directly or indirectly, since date of last report?
None.
18. What number acres sold and conveyed since date of your last report?
19. Average price, per acre, realized?
None.
20. To what corporations have you sold land? How much, and what price, since the date of your last report?
None.
21. Number of acres now held by Company?
None.
22. Average price asked for lands now held by Company?
23. Value of donations of right of way or other real estate received since the date of your last report?
None.
24. Amount of city, county and town aid granted to Company in exchange for stock, or otherwise? Specify particulars since date of last report?
None.
25. Total cash amount realized from such aid since date of your last report?
26. Amount of land sold, but not conveyed, under contracts now in force?
None.
27. The whole amount of cash, principal and interest, received for lands hitherto sold and conveyed, since date of last report?
None.

28. Whole amount of cash received, principal and interest, on outstanding contracts in force, since date of last report?
None.
29. Whole amount of cash received, principal and interest, on contracts forfeited, since date of last report?
None.
30. Whole amount of cash received for stumpage, trespasses, etc., since date of last report?
None.
31. What have been your total receipts from lands sold, and contracted to be sold, since the date of last report?
None.
32. What is the aggregate sum of receipts on account of lands, from all sources whatever, up to present time?
None.
33. What is the amount now due the Company on lands sold, or contracted to be sold?
None.
34. Are there any terminal points or places, on your lines in, or out, of this state, to and from which the larger portion of the freight transported on your lines is carried? If so, name them.
Milwaukee.
35. Have you made any advance in the rates of freight, from stations on your lines, to such terminal points since the enactment of chapter 57 of laws of 1876?
No material advance.
36. Have you made any reductions in such rates, from any stations, since the passage of said chapter?
If you answer either of the questions in the affirmative, annex to your reply schedules, naming the stations, with distance and rates in force at the time, and since the passage of said chapter, on 1st, 2d, 3d and 4th class of freight, and upon flour, grain, live stock, agricultural implements, salt, and coal.
No material reduction.
37. *Have you made such advance or reduction on your rates of freight between other stations on your line? If yes, annex a schedule to your reply, showing what the advance or reduction has been on the articles above named.
No change of importance.
38. What is your present tariff per mile for passengers, both through and local?
Four cents. Five hundred mile tickets, three cents per mile.
39. What proportion of the passengers carried by you, in this State, purchase round trip tickets? And what proportion purchase 500-mile tickets?
No round trip tickets sold but to excursion parties. Four per cent of passenger mileage is on 500 mile tickets.
40. Have you made any advance in the rates of freight for lumber, since the passage of chapter 57, of the laws of 1876? If so, annex to your reply a schedule, naming the stations and rates in force both at the time and since the passage of said chapter.
No change of importance.
41. Has your Company any rule governing your conductors, engineers, and trainmen concerning the use of intoxicating liquors? *If so, what is it, and is it enforced?*
The use of intoxicating drinks on or about the premises of the company is strictly prohibited, and any employee appearing on duty in a state of intoxication is forthwith dismissed—those who totally abstain will receive the preference in promotion and employment. These rules are strictly enforced.

* The "distance tariff," with both rates noted thereon, will be a sufficient answer.

ACCIDENTS.

No. of Accidents.	STATEMENT OF EACH ACCIDENT.	PASSENGERS.						EMPLOYEES.						OTHERS.						Damages Claimed.	Damages Paid.
		Killed.	From causes beyond their control.	Killed.	By their own mis-conduct or want of caution.	Killed.	From causes beyond their control.	Killed.	By their own mis-conduct or want of caution.	Killed.	From causes beyond their control.	Killed.	By their own mis-conduct or want of caution.	Killed.	From causes beyond their control.	Killed.	By their own mis-conduct or want of caution.	In	of caution.		
2	J. Strobar, hand crushed while coupling cars, December, 1876.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	None.	\$15 50
...	C. J. Hayes, finger crushed while coupling cars, requiring amputation.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	None.	15 50
	Total .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	\$31 00

1. Of the above accidents, those numbered as follows were caused by broken rails.
Total No., none.
2. Of the above accidents, those numbered as follows were caused by inattention of employees:
Total No., 2.
3. Of the above accidents, those numbered as follows were caused by collisions not properly coming under 2.
Total No., none.
4. Of the above accidents, those numbered as follows were caused by explosions:
Total No., none.
5. Amount paid as damages caused by fire from locomotives:

NUMBER AND KIND OF FARM ANIMALS KILLED, AND AMOUNT DAMAGES PAID THEREFOR.

	Number killed.	Amount paid.
1. Cattle	28	\$456 55
2. Horses	1	25 00
3. Mules, &c.		
4. Sheep	10	80 00
5. Hogs	5	34 00
Total	44	\$545 55

7. Amount claimed yet unsettled, or in litigation.
All claims adjusted and paid.

STATE OF WISCONSIN — County of Milwaukee — ss:

Frederic W. Rhinelander, President, and H. G. H. Reed, General Superintendent of the Milwaukee, Lake Shore and Western Railway Company, being duly sworn, depose and say that they have caused the foregoing statements to be prepared by the proper officers and agents of this company, and having carefully examined the same, declare them to be a true, full and correct statement of the condition and affairs of said company, on the first day of October, A. D. 1877, to the best of their knowledge and belief.

Signed,

[SEAL.]

F. W. RHINELANDER, Prest.
H. G. H. REED, Gen'l Supt.

Subscribed and sworn to before me, at Chicago, this 26th day of November, A. D. 1877.

[SEAL]

ALFRED L. CARY,
Notary Public, Milwaukee Co., Wis.

REPORT
OF THE
MINERAL POINT RAILROAD,

For the year ending 30th September, 1877.

OFFICERS AND OFFICES OF THE COMPANY OPERATING.

NAMES.	OFFICES.	ADDRESS.	SALAR'S.
Luther Beecher.....	President.....	Detroit, Mich..	.....
.....	1st Vice-President .....	.....	.....
Calvert Spensley.....	Secretary.....	Min. Pt., Wis..	.....
.....	Solicitor .....	.....	.....
Luther Beecher.....	Treasurer..	Detroit, Mich..	.....
Geo. W. Cobb.....	General Manager	Min'l Pt., Wis.	.....
.....	General Superintendent.....	.....	.....
.....	Chief Engineer .....	.....	.....
Albert W. Cobb.....	General Ticket Agent..	.....	.....
.....	General Freight Agent.....	.....	.....
.....	Auditor .....	.....	.....
Total salaries.....	.....	.....	.....

1. General offices at —.

NAMES OF DIRECTORS.	RESIDENCE.
Luther Beecher.....	Detroit, Mich.
Geo. W. Cobb.....	Mineral Point, Wis.
M. M. Cothren.....	Mineral Point, Wis.
Calvert Spensley.....	Mineral Point, Wis.
Geo. Beecher	Detroit, Mich.

EXECUTIVE COMMITTEE.

2. Date of annual election of directors.
First Monday in July.
3. Name and address of person to whom correspondence, concerning this report, should be directed.
Geo. W. Cobb, Gen'l Manager, Mineral Point, Wis.

CAPITAL STOCK.

1. Capital stock authorized by charter.
2. How many kinds of stock?
All common.
3. Amount of common stock \$1,200,000 00
4. Amount of preferred stock
5. Total capital stock \$1,200,000 00
6. *Proportion of stock for Wisconsin \$1,128,427 00
7. Rate of preference.
8. How much *common* stock has been issued during the year ending September 30, 1877?
None.
9. For what purpose? and what was received therefor?
10. How much *preferred* stock has been issued during the year ending September 30, 1877?
None.
11. For what purpose? and what was received therefor?

FUNDED AND UNFUNDED DEBT.

	Total.	Wisconsin Lines.
1. Describe severally all outstanding classes of bonds, including amounts, dates of issue, interest, where and payable First mortgage bonds, issued in 1868, 10 per cent. interest, payable at Second National Bank, Detroit, Mich., in 1890	\$320,000 00	.....
2. Amount of debt not secured by mortgage	118,794 65	.....
3. Total funded and unfunded debt	\$438,794 65	.....
4. Net cash realized from bonded debt, above described	\$320,000 00	.....
5. Proportion of debt, bonded and floating for Wisconsin	\$416,782 78	.....

* Unless some good reason exists to the contrary, this proportion—and all other estimates of the same character—should be for the miles of road in this state compared with the whole. If made on a different basis please state the reason therefor.

COST OF ROAD AND EQUIPMENT.

	Total.	Wisconsin Lines.
1. What amount has been expended for right of way during the year ending Sept. 30, 1877...	None.	.....
2. What for real estate, and for what purpose purchased?	None.	.....
3. What has been expended in construction during the year ending Sept. 30, 1877.....	None.	.....
4. What for improvement? Nothing but what is shown on page 8.....	.....	.....
5. What for other items of expense, for construction and equipment.....	None.	.....
6. What amounts, if any, have been paid for roads or portions of roads not built by company during the time mentioned.....	None.	.....
7. Total expended between Sept. 30, 1876, and Sept. 30, 1877.....	.....	.....
8. Total cost of entire line, as per last report....	\$1,181,175 00	.....
9. Total cost of entire line to date.. ..	.....	.....

**ORIGINAL COST AND PRESENT ESTIMATED VALUE OF TOTAL
PROPERTY IN THIS STATE.**

DESCRIPTION OF PROPERTY.	Total.	In Wisconsin.
1. What amount has been expended for grading between Sept. 30, 1876, and Sept. 30, 1877.....		
2. How much for bridges.....		
3. How much for tunnels.....		
4. How much for iron bridges.....		
5. How much for wooden bridges.....		
6. How much for ties and tying.....		
7. How much for iron rail, — No. miles, — lbs. wt per yard.....		
8. How much for steel rail, — No. miles, — lbs. wt. per yard.....		
9. How much for chains, spikes, fish-bar, etc.....		
10. How much for laying track.....		
11. How much for passenger and freight stations, fixtures and furniture, as per schedule, No. stations.....		
12. How much for engine and car shops, No. —.....		
13. How much for machine shops, No. —.....		
14. How much for machinery and fixtures.....		
15. How much for engine houses, No. —.....		
16. How much for car sheds, No. —.....		
17. How much for turn tables, No. —.....		
18. How much for track and other scales, No. —.....		
19. How much for wood sheds and water stations, No. —.....		
20. How much for fencing, No. miles —.....		
21. How much for elevators, No. —.....		
22. How much for locomotives and tenders, No. —, av. wt. tons.....		
23. How much for snow plows, as per schedule, No. —, av. wt. tons, —.....		
24. How much for wreckers, No. —, av. wt. tons, —.....		
25. How much for passenger cars, 1st class, No. —, av. wt. tons, —.....		
26. How much for passenger cars, 2d class, No. —, Av. wt. tons, —.....		
27. How much for baggage cars, No. —, av. wt. tons, —.....		
28. How much for mail cars, No. —, Av. wt. tons, —.....		
29. How much for express cars, No. —, av. wt. tons, —.....		
30. How much for freight cars closed, No. —, Av. wt. tons, —.....		
31. How much for platform cars, No. —, Av. wt. tons, —.....		
32. How much for hand cars, No. —, Av. wt. tons, —.....		
33. How much for machinery and tools to accompany trains, repair track, etc., used by trackmen or others.....		
34. How much for all other property not enumerated.....		
35. Total amount expended between Sept. 30, 1876, and Sept. 30, 1877.....		

Nothing under this head but what is included on page 8.

CHARACTERISTICS OF THE ROAD.

LENGTH OF ROAD.	MILES.		Weight of Rail per yard.
	Entire Length.	Length in Wisconsin.	
1. Length of main line of road from Mineral Point, Wis. to Warren, Ill.	83	81	56
2. Length of double track on main line.....			
* BRANCHES — Name each.			
3. Length of branch.....			
From Calamine to Platteville. Length of double track on branch	18	16	56
4. Length of branch.....			
From — to —. Length of double track on branch			
5. Length of branch			
From — to —. Length of double track on branch.....			
6. Length of branch.....			
From — to —. Length of double track on branch			
7. Total length of main line and branches.....	51	49	56
8. Aggregate length of tracks operated by this company <i>computed as single track</i> , 51 miles.			
9. Aggregate length of sidings and other track not above enumerated, 5 miles.			
10. Number of junction stations, 2.			
11. What is the gauge of your line? 4 feet, 8½ inches.			

DOINGS OF THE YEAR IN TRANSPORTATION.

CHARACTER OF SERVICE.	No. of Per'ns employed.	Av. Salary per An-num.
1. Division and assistant superintendents	1	.....
Clerks in all offices.....	8	.....
Master and assistant mechanics	2	.....
Conductors	2	.....
Engineers	4	.....
Brakemen	4	.....
Flagmen, switch-tenders, gate-keepers and watchmen.....	5	.....
Station agents	7	.....
Section men	40	.....
Laborers.....		.....
Other employes	28	.....

* This includes leased lines — designate them as such — the earnings, expenses, etc., of which are given in this report.

Doings of the Year in Transportation—continued.

MILEAGE AND TONNAGE.	MILES.	
	Whole Line.	In Wisc'nsin
2. No. of miles run by passenger trains.....		
No passenger trains		
3. No. of miles run by freight and mixed trains	70,112	
4. No. of miles run by constr'n and other trains	2,500	
5. Total mileage	72,612	
6. Total No. of passengers carried	80,838	
7. Total No. tons freight carried one mile		
8. Total No. passengers carried one mile.....	606,760	
9. Average distance traveled by each passenger	20	Miles.
Miles per hour.		
10. The highest rate of speed allowed for express passenger trains (none of these trains)...		
11. Schedule rate of same, including stops		
12. The highest rate of speed allowed for mail and accomodation trains	16	
13. Schedule of same, including stops	16	
14. The highest rate of speed allowed for freight trains	16	
15. Schedule rate of same, including stops	16	
16. Amount of freight carried per car	20,000	pounds.
17. TOTAL FREIGHT IN TONS.		
Grain	21,102	
Flour	194	
Provisions.....	698	
Salt, cement, water lime and stucco.....	1,150	
Manufactures, including agricultural im- plements, furniture and wagons.....	566	
Live stock.....	9,960	
Lumber and forest products.....	6,150	
Iron, lead and mineral products.....	11,656	
Stone, brick, lime, sand, etc....	373	
Coal.....	2,874	
Merchandize and other articles	8,673	
Total tons	63,896	60,907

EARNINGS DURING THE YEAR ENDING SEPTEMBER 30, 1877.

MONTHLY EARNINGS FROM ALL SOURCES.

MONTHS.	PASSENGERS.		FREIGHT.		MAILS, EXPR'S, AND ALL OTH'R SOURCES.		TOTALS.	
	Whole Line.	Wis	Whole Line.	Wis	Whole Line.	Wis	Whole Line.	Wis
1876.								
October	\$2,139 85	...	\$11,245 24	....	\$301 66	....	\$13,686 75	....
November ...	1,664 90	....	9,687 68	....	865 86	....	11,717 94	....
December	1,685 15	....	8,687 35	....	420 56	....	10,743 06	....
1877.								
January	1,538 91		5,847 58		697 99		8,084 48	
February	1,558 94		7,256 79		301 66		9,117 39	
March	1,714 65		7,435 81		475 03		9,624 98	
April	1,845 89		5,193 79		608 97		7,648 15	
May	1,660 74		7,474 44		542 97		9,678 15	
June ...	1,851 00		6,872 29		367 81		9,090 60	
July	1,906 64		5,835 30		497 17		8,239 11	
August	1,754 09		7,002 02		378 93		9,135 04	
September	2,899 72		11,527 66		345 45		14,772 88	
Totals...	22,219 98	Total, \$21,348 68	94,015 45	Total, \$90,828 56	5,803 05	Total, \$5,094 03	121,538 48	Total, \$116,771 90

1. Earnings per mile of road..... \$2,833 10
2. Earnings per mile of road on freight..... 1,843 44
3. Earnings per mile on passengers..... 435 68
4. Earnings per train-mile run, on freight..... 1 29
5. Earnings per train-mile run, on passengers..... .037
6. Of the earnings of the entire line, what is the ratio of the passenger to the freight?..... as 2 to 8
7. Average gross earnings per mile [51 miles] of road, exclusive of sidings..... \$2,833 10
8. Average net earnings per mile of road, exclusive of sidings....
9. Average net earnings per train-mile.....

EXPENSES DURING THE YEAR ENDING SEPTEMBER 30, 1877.

PAYMENTS FOR CURRENT AND OPERATING EXPENSES.	Belonging to whole line	Belonging to Wis.
1. Maintenance of way:		
Repairs of track, including new and rerolled iron rail in place of old iron rail.....	\$23,432 19	.....
Repairs of bridges.....	866 56	.....
Repairs of fences.....	2,278 09	.....
New steel rail, valued only as iron rail*.....		.....
Other expenses on way.....		.....
2. Maintenance of buildings.....	471 21	.....
3. Maintenance of rolling stock.....		.....
Locomotives.....		.....
Passenger, baggage, mail and express cars }	10,539 09	.....
Freight cars.....		.....
Shop tools and machinery.....		.....
4. Conducting transportation, and general expenses:		
Management and general office.....	18,137 70	.....
Foreign agency and advertising.....		.....
Agents and station service.....	9,048 35	.....
Conductors, baggage and brakemen.....	8,529 00	.....
Engineers, firemen and wipers.....	7,182 88	.....
Train and station supplies.....		.....
Fuel consumed.....	10,436 56	.....
Oil and waste.....	675 82	.....
Personal expenses.....		.....
Damage to persons.....		.....
Damage to property.....	232 50	.....
Loss and damage to fr't and bag.....	63 98	.....
Miscellaneous.....	1,935 57	.....
Other general operati'g expenses as per items below.....		.....
5. Current expenses:		
For taxes.....	73 70	.....
For insurance.....		.....
Lease or privilege of other roads whose earnings are included in this report, giving name and amounts paid.....		.....
6. Total current operating expenses, being — per cent. of earnings.....	83,902 20	.....
7. Average operating expenses per mile of road, exclusive of sidings.....	1,645 14	.....
8. Average operating expenses per train mile....	161 15	.....
9. Excess of earnings over operating and current expenses.....	5,636 28	.....
10. Cost of maintaining track and bridges per mile run.....	.0334	.....
11. Cost of repairs of engines and cars per mile run.....	.0132	.....
12. Cost of engineers and firemen per mile run....	.009	.....
13. Cost of oil and waste per mile run....	.008	.....
14. Cost of fuel per mile run.....	.0143	.....

*In substituting steel rail for iron rail, the cost of iron rail only should be charged to operating account, and the excess carried to extraordinary expenses. (See next page.)

Expenses, etc. — continued.

PAYMENTS IN ADDITION TO OPERATING EXPENSES.

	Belonging to Whole Line.	Belonging to Wisconsin.
15. New steel rails, excess of cost over iron rail, old track		
16. New rail on new track.....		
17. New equipment.....		
18. New bridges and culverts (not including re- placements)		
19. Real estate bought during the year ...		
20. New tools and machinery.....		
21. New buildings... ..		
22. Total paid for new investment on the length of the company's lines since date of last report... ..		
23. Amounts paid in cash, stock, bonds, or other- wise, for extensions, new lines and branches, during the past year — specify particulars...		
Total new investments.....		
24. For interest on bonds etc.....	\$32,000 00	
25. Dividends — rate — per cent.— on preferred stock		
26. Dividends — rate — per cent.— on common stock		
Total payments in addition to operating ex- penses	\$32,000 00	
28. What amount of money have you expended for building roads out of the state, from proceeds arising from business done on your roads in this state?.....		
29. How was amount of dividends paid the past year — cash, stock or other wise? Specify amounts and manner of payment. No dividend.		

GENERAL BALANCE SHEET. SEP OF OCTOBER 1971

1971	1970	1969	1968	1967	1966	1965	1964	1963	1962	1961	1960	1959	1958	1957	1956	1955	1954	1953	1952	1951	1950	1949	1948	1947	1946	1945	1944	1943	1942	1941	1940	1939	1938	1937	1936	1935	1934	1933	1932	1931	1930	1929	1928	1927	1926	1925	1924	1923	1922	1921	1920	1919	1918	1917	1916	1915	1914	1913	1912	1911	1910	1909	1908	1907	1906	1905	1904	1903	1902	1901	1900	1899	1898	1897	1896	1895	1894	1893	1892	1891	1890	1889	1888	1887	1886	1885	1884	1883	1882	1881	1880	1879	1878	1877	1876	1875	1874	1873	1872	1871	1870	1869	1868	1867	1866	1865	1864	1863	1862	1861	1860	1859	1858	1857	1856	1855	1854	1853	1852	1851	1850	1849	1848	1847	1846	1845	1844	1843	1842	1841	1840	1839	1838	1837	1836	1835	1834	1833	1832	1831	1830	1829	1828	1827	1826	1825	1824	1823	1822	1821	1820	1819	1818	1817	1816	1815	1814	1813	1812	1811	1810	1809	1808	1807	1806	1805	1804	1803	1802	1801	1800	1799	1798	1797	1796	1795	1794	1793	1792	1791	1790	1789	1788	1787	1786	1785	1784	1783	1782	1781	1780	1779	1778	1777	1776	1775	1774	1773	1772	1771	1770	1769	1768	1767	1766	1765	1764	1763	1762	1761	1760	1759	1758	1757	1756	1755	1754	1753	1752	1751	1750	1749	1748	1747	1746	1745	1744	1743	1742	1741	1740	1739	1738	1737	1736	1735	1734	1733	1732	1731	1730	1729	1728	1727	1726	1725	1724	1723	1722	1721	1720	1719	1718	1717	1716	1715	1714	1713	1712	1711	1710	1709	1708	1707	1706	1705	1704	1703	1702	1701	1700	1699	1698	1697	1696	1695	1694	1693	1692	1691	1690	1689	1688	1687	1686	1685	1684	1683	1682	1681	1680	1679	1678	1677	1676	1675	1674	1673	1672	1671	1670	1669	1668	1667	1666	1665	1664	1663	1662	1661	1660	1659	1658	1657	1656	1655	1654	1653	1652	1651	1650	1649	1648	1647	1646	1645	1644	1643	1642	1641	1640	1639	1638	1637	1636	1635	1634	1633	1632	1631	1630	1629	1628	1627	1626	1625	1624	1623	1622	1621	1620	1619	1618	1617	1616	1615	1614	1613	1612	1611	1610	1609	1608	1607	1606	1605	1604	1603	1602	1601	1600	1599	1598	1597	1596	1595	1594	1593	1592	1591	1590	1589	1588	1587	1586	1585	1584	1583	1582	1581	1580	1579	1578	1577	1576	1575	1574	1573	1572	1571	1570	1569	1568	1567	1566	1565	1564	1563	1562	1561	1560	1559	1558	1557	1556	1555	1554	1553	1552	1551	1550	1549	1548	1547	1546	1545	1544	1543	1542	1541	1540	1539	1538	1537	1536	1535	1534	1533	1532	1531	1530	1529	1528	1527	1526	1525	1524	1523	1522	1521	1520	1519	1518	1517	1516	1515	1514	1513	1512	1511	1510	1509	1508	1507	1506	1505	1504	1503	1502	1501	1500	1499	1498	1497	1496	1495	1494	1493	1492	1491	1490	1489	1488	1487	1486	1485	1484	1483	1482	1481	1480	1479	1478	1477	1476	1475	1474	1473	1472	1471	1470	1469	1468	1467	1466	1465	1464	1463	1462	1461	1460	1459	1458	1457	1456	1455	1454	1453	1452	1451	1450	1449	1448	1447	1446	1445	1444	1443	1442	1441	1440	1439	1438	1437	1436	1435	1434	1433	1432	1431	1430	1429	1428	1427	1426	1425	1424	1423	1422	1421	1420	1419	1418	1417	1416	1415	1414	1413	1412	1411	1410	1409	1408	1407	1406	1405	1404	1403	1402	1401	1400	1399	1398	1397	1396	1395	1394	1393	1392	1391	1390	1389	1388	1387	1386	1385	1384	1383	1382	1381	1380	1379	1378	1377	1376	1375	1374	1373	1372	1371	1370	1369	1368	1367	1366	1365	1364	1363	1362	1361	1360	1359	1358	1357	1356	1355	1354	1353	1352	1351	1350	1349	1348	1347	1346	1345	1344	1343	1342	1341	1340	1339	1338	1337	1336	1335	1334	1333	1332	1331	1330	1329	1328	1327	1326	1325	1324	1323	1322	1321	1320	1319	1318	1317	1316	1315	1314	1313	1312	1311	1310	1309	1308	1307	1306	1305	1304	1303	1302	1301	1300	1299	1298	1297	1296	1295	1294	1293	1292	1291	1290	1289	1288	1287	1286	1285	1284	1283	1282	1281	1280	1279	1278	1277	1276	1275	1274	1273	1272	1271	1270	1269	1268	1267	1266	1265	1264	1263	1262	1261	1260	1259	1258	1257	1256	1255	1254	1253	1252	1251	1250	1249	1248	1247	1246	1245	1244	1243	1242	1241	1240	1239	1238	1237	1236	1235	1234	1233	1232	1231	1230	1229	1228	1227	1226	1225	1224	1223	1222	1221	1220	1219	1218	1217	1216	1215	1214	1213	1212	1211	1210	1209	1208	1207	1206	1205	1204	1203	1202	1201	1200	1199	1198	1197	1196	1195	1194	1193	1192	1191	1190	1189	1188	1187	1186	1185	1184	1183	1182	1181	1180	1179	1178	1177	1176	1175	1174	1173	1172	1171	1170	1169	1168	1167	1166	1165	1164	1163	1162	1161	1160	1159	1158	1157	1156	1155	1154	1153	1152	1151	1150	1149	1148	1147	1146	1145	1144	1143	1142	1141	1140	1139	1138	1137	1136	1135	1134	1133	1132	1131	1130	1129	1128	1127	1126	1125	1124	1123	1122	1121	1120	1119	1118	1117	1116	1115	1114	1113	1112	1111	1110	1109	1108	1107	1106	1105	1104	1103	1102	1101	1100	1099	1098	1097	1096	1095	1094	1093	1092	1091	1090	1089	1088	1087	1086	1085	1084	1083	1082	1081	1080	1079	1078	1077	1076	1075	1074	1073	1072	1071	1070	1069	1068	1067	1066	1065	1064	1063	1062	1061	1060	1059	1058	1057	1056	1055	1054	1053	1052	1051	1050	1049	1048	1047	1046	1045	1044	1043	1042	1041	1040	1039	1038	1037	1036	1035	1034	1033	1032	1031	1030	1029	1028	1027	1026	1025	1024	1023	1022	1021	1020	1019	1018	1017	1016	1015	1014	1013	1012	1011	1010	1009	1008	1007	1006	1005	1004	1003	1002	1001	1000	999	998	997	996	995	994	993	992	991	990	989	988	987	986	985	984	983	982	981	980	979	978	977	976	975	974	973	972	971	970	969	968	967	966	965	964	963	962	961	960	959	958	957	956	955	954	953	952	951	950	949	948	947	946	945	944	943	942	941	940	939	938	937	936	935	934	933	932	931	930	929	928	927	926	925	924	923	922	921	920	919	918	917	916	915	914	913	912	911	910	909	908	907	906	905	904	903	902	901	900	899	898	897	896	895	894	893	892	891	890	889	888	887	886	885	884	883	882	881	880	879	878	877	876	875	874	873	872	871	870	869	868	867	866	865	864	863	862	861	860	859	858	857	856	855	854	853	852	851	850	849	848	847	846	845	844	843	842	841	840	839	838	837	836	835	834	833	832	831	830	829	828	827	826	825	824	823	822	821	820	819	818	817	816	815	814	813	812	811	810	809	808	807	806	805	804	803	802	801	800	799	798	797	796	795	794	793	792	791	790	789	788	787	786	785	784	783	782	781	780	779	778	777	776	775	774	773	772	771	770	769	768	767	766	765	764	763	762	761	760	759	758	757	756	755	754	753	752	751	750	749	748	747	746	745	744	743	742	741	740	739	738	737	736	735	734	733	732	731	730	729	728	727	726	725	724	723	722	721	720	719	718	717	716	715	714	713	712	711	710	709	708	707	706	705	704	703	702	701	700	699	698	697	696	695	694	693	692	691	690	689	688	687	686	685	684	683	682	681	680	679	678	677	676	675	674	673	672	671	670	669	668	667	666	665	664	663	662	661	660	659	658	657	656	655	654	653	652	651	650	649	648	647	646	645	644	643	642	641	640	639	638	637	636	635	634	633	632	631	630	629	628	627	626	625	624	623	622	621	620	619	618	617	616	615	614	613	612	611	610	609	608	607	606	605	604	603	602	601	600	599	598	597	596	595	594	593	592	591	590	589	588	587	586	585	584	583	582	581	580	579	578	577	576	575	574	573	572	571	570	569	568	567	566	565	564	563	562	561	560	559	558	5
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1. What regulations govern your employees in regard to crossings of other railroads, and are they found to be sufficient?
(Cross no railroads.)
2. What regulations govern your employees in regard to crossings of public highways? And are these regulations found to be sufficient?
Engineers must sound the signal to take off brakes immediately before starting a train, and must sound the whistle at the distance of half a mile when approaching a station, and also eighty rods before crossing a highway. They must have the bell rung before starting a train, while moving a train about stations, and also eighty rods before crossing a highway, and until it shall have been passed. (Found sufficient.)
3. What platform and coupler between passenger cars do you use?
Ordinary platform and coupler used.
4. What kind of brakes do you use on passenger trains?
No passenger trains. Use ordinary brakes.

U. S. MAIL.

5. What is the compensation paid you by the U. S. government for the transportation of its mails, and on what terms of service?
\$45 per mile for daily services, except Sunday, each way, for main line; \$50 per mile for daily services, except Sunday, each way, for Platteville branch.

EXPRESS COMPANIES.

6. What express companies run on your road, and on what terms, and what conditions as to rates, use of track, machinery, repairs of cars, etc.; what kind of business is done by them, and do you take their freights at the depot, or at the office of such express companies?
We carry freight, etc., for American Express Company in our own cars, for a stipulated monthly compensation. Freight, etc., received on cars, and in charge of express company's employees.

TRANSPORTATION COMPANIES.

7. What freight and transportation companies run on your road, and on what terms, and on what conditions as to rates, use of track, machinery, repairs of cars, etc.? Do they use the cars of your company, or those furnished by themselves, and are their cars or their freight given any preference in speed or order of transportation, and if so, in what particular?
None.

SLEEPING CARS.

8. Do sleeping or dining cars run on your road, and if so, on what terms are they run, by whom are they owned, and what charges are made in addition to the regular passenger rates?
None.

ADDITIONAL QUESTIONS.

9. Have you acquired any additional chartered rights or privileges under the special or general laws of this state, directly or indirectly, since your last report?
None.

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Cross no railroads.
2. What regulations govern your employees in regard to crossings of public highways? And are these regulations found to be sufficient?
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None.

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8. Do sleeping or dining cars run on your road, and if so, on what terms are they run, by whom are they owned, and what charges are made in addition to the regular passenger rates?
None.

ADDITIONAL QUESTIONS.

9. Have you acquired any additional chartered rights or privileges under the special or general laws of this state, directly or indirectly, since your last report?
None.

10. Have you acquired any such additional rights or privileges under the laws, general or special, of any other state, since your last report?
None.
11. Have you acquired any lines in or out of this State, by purchase, lease, consolidation or otherwise, since your last report? If yes, give full particulars relating thereto, including length of line, location thereof, at what point or place connection is made with old line; terms of purchase or lease, and brief statement of reasons for making such purchase or lease, and whether made by consent of stockholders?
None.
12. Do you, by purchase or ownership of capital stock, or in any other manner, control any other railroad corporation owning or having under its control a parallel or competing line?
None.
13. Does any officer of your company act as the officer of any other railroad corporation, owning or having the control of a parallel or competing line?
No.
14. What running arrangements have you with other railroad companies, setting forth the contracts for the same, made since the date of your last report?
None.
15. Have you such arrangements with other railroad companies crossing or connecting with your lines, as enable passengers to make close connections with trains on such lines, at all such crossing or connecting points? If so, when were such arrangements made? If not at all such points, state at what points such connections are not made, and the reasons therefor?
This road connects with the Illinois Central Railroad at Warren, Ill., and trains on this road make close connections with trains on the Ill. Cent. R. R.
16. Have any swamp or other State lands been granted your Company since the date of your last report? If so, how many acres?
No.
17. Have any United States lands been granted to your Company, directly or indirectly, since the date of your last report? What number acres received by your Company, directly or indirectly, since date of last report?
No.
18. What number acres sold and conveyed since date of your last report?
19. Average price, per acre, realized?
20. To what corporations have you sold land? How much, and what price, since the date of your last report?
None.
21. Number of acres now held by Company?
None.
22. Average price asked for lands now held by Company?
None.
23. Value of donations of right of way or other real estate received since the date of your last report?
None.
24. Amount of city, county and town aid granted to Company in exchange for stock, or otherwise? Specify particulars since date of last report?
None.
25. Total cash amount realized from such aid since date of your last report?
Nothing.
26. Amount of land sold, but not conveyed, under contracts now in force?
None.
27. The whole amount of cash, principal and interest, received for lands hitherto sold and conveyed, since date of last report?
None.
28. Whole amount of cash received, principal and interest, on outstanding contracts in force, since date of last report?
None.

29. Whole amount of cash received, principal and interest, on contracts forfeited, since date of last report?
None.
30. Whole amount of cash received for stumpage, trespasses, etc., since date of last report?
None.
31. What have been your total receipts from lands sold, and contracted to be sold, since the date of last report?
None.
32. What is the aggregate sum of receipts on account of lands, from all sources whatever, up to present time?
None.
33. What is the amount now due the Company on lands sold, or contracted to be sold?
None.
34. Are there any terminal points or places, on your lines in, or out, of this state, to and from which the larger portion of the freight transported on your lines is carried? If so, name them.
Most of the freight on this road is conveyed to Warren, Ill., where this railroad connects with the Illinois Central Railroad.
35. Have you made any advance in the rates of freight, from stations on your lines, to such terminal points since the enactment of chapter 57 of laws of 1876?
No.
36. Have you made any reductions in such rates, from any stations, since the passage of said chapter?
If you answer either of the questions in the affirmative, annex to your reply schedules, naming the stations, with distance and rates in force at the time, and since the passage of said chapter, on 1st, 2d, 3d and 4th class of freight, and upon flour, grain, live stock, agricultural implements, salt, and coal.
37. *Have you made such advance or reduction on your rates of freight between other stations on your line? If yes, annex a schedule to your reply, showing what the advance or reduction has been on the articles above named.
38. What is your present tariff per mile for passengers, both through and local?
Four (4) cents per mile.
39. What proportion of the passengers carried by you, in this State, purchase round trip-tickets? And what proportion purchase 500-mile tickets?
We don't use either.
40. Have you made any advance in the rates of freight for lumber, since the passage of chapter 57, of the laws of 1876? If so, annex to your reply a schedule, naming the stations and rates in force both at the time and since the passage of said chapter.
No advance has been made.
41. Has your Company any rule governing your conductors, engineers, and trainmen concerning the use of intoxicating liquors? *If so, what is it, and is it enforced?*
To secure the safety of passengers and property, and promptness and discipline in the despatch of the business of the road, the use of intoxicating liquors is strictly forbidden to the officers and men in the service of this company. When upon duty, any person who shall become intoxicated will be immediately dismissed.
Any person not willing to promptly and cheerfully conform to such orders as may be found necessary for the proper despatch of business, is particularly requested to leave the service of the company.
It is enforced.

* The "distance tariff," with both rates noted thereon, will be a sufficient answer.

ACCIDENTS.

[illegible]

1. Of the above accidents, those numbered as follows were caused by broken rails.
Total No.....
2. Of the above accidents those numbered as follows were caused by inattention of employees:
Total No.....
3. Of the above accidents those numbered as follows were caused by collisions not properly coming under 2:
Total No.....
4. Of the above accidents those numbered as follows were caused by explosions:
Total No.....
5. Amount paid as damages caused by fire from locomotives....

NUMBER AND KIND OF FARM-ANIMALS KILLED, AND AMOUNT OF DAMAGES PAID THEREFOR.

	Number Killed.	Amount Paid.
1. Cattle
2. Horses
3. Mules
4. Sheep
5. Hogs.....
6. Total

7. Amount claimed yet unsettled, or in litigation.

REMARKS.

The amount of taxes given on page 8, viz., \$73.70, is the amount of taxes paid in the state of Illinois. The taxes due to the state of Wisconsin for the year 1876 were not paid, because there was an overpayment of taxes made by the company to the state treasurer on the taxes for 1875; and by consent of the state authorities, the whole matter was left open to be adjusted by the next legislature.

STATE OF WISCONSIN, }
County of Iowa. } ss.

George W. Cobb, Managing Director, and Calvert Spensley, Secretary, of the Mineral Point Railroad, being duly sworn, depose and say that they have caused the foregoing statements to be prepared by the proper officers and agents of this company, and having carefully examined the same, declare them to be a true, full and correct statement of the condition and affairs of said company, on the first day of October, A. D. 1877, to the best of their knowledge and belief.

[SEAL.]

Signed.

GEO. W. COBB,
CALVERT SPENSLEY.

Subscribed and sworn to before me, at Mineral Point, Wis., this 27th day of October, A. D. 1877.

[SEAL.]

CYRUS LANYON,
Notary Public, Iowa Co., Wis.

REPORT
OF THE
CHICAGO, MILWAUKEE & ST. PAUL RAILWAY COMPANY,
LESSEES OF THE
MADISON AND PORTAGE RAILROAD COMPANY,
For the year ending 30th September, 1877.

OFFICERS AND OFFICES OF THE COMPANY OPERATING.

NAMES.	OFFICE.	ADDRESS.	Salaries.
James Campbell	President	Madison, Wis. ....	.....
R. P. Lane	1st Vice-President.....	Rockford, Ill. ....	.....
A. S. Sanborn	Secretary	Madison, Wis. ....	.....
B. J. Steevns	Solicitor	Madison, Wis. ....	.....
J. B. Bowen	Treasurer	Madison, Wis. ....	.....
.....	General Manager.....	.....	.....
.....	Gen. Superintendent .....	.....	.....
.....	Chief Engineer .....	.....	.....
.....	Gen. Ticket Agent.....	.....	.....
.....	Gen. Freight Agent.....	.....	.....
.....	Auditor.....	.....	.....
Total salaries.....	.....	.....	.....

1. General offices at

NAMES OF DIRECTORS.	RESIDENCE.
James Campbell.....	Madison.
David Atwood.....	Madison.
R. B. Sanderson	Madison.
Winslow Bullin	Arlington.
O. D. Peck	Oshkosh.
H. F. Moore.....	Brodhead.
R. P. Lane	Rockford, Ill.
Ralph Emerson	Rockford, Ill.
Geo. Young	Hale, Ill.

EXECUTIVE COMMITTEE.

.....

2. Date of annual election of directors. Second Wednesday in January.
3. Name and address of person to whom correspondence, concerning this report, should be directed,

CAPITAL STOCK.

1. Capital stock authorized by charter.
2. How many kinds of stock?
3. Amount of common stock.
4. Amount of preferred stock.
5. Total capital stock.
6. *Proportion of stock for Wisconsin.
7. Rate of preference?
8. How much common stock has been issued since Sept. 30, 1876?
9. For what purpose? and what was received therefor?
10. How much preferred stock has been issued, since September, 30, 1876?
11. For what purpose? and what was received therefor?

FUNDED AND UNFUNDED DEBT.

	Total.	Wisconsin Lines.
1. Describe severally all outstanding classes of bonds, including amounts, dates of issue, interest, where and when payable.		
2. Amount of debt not secured by mortgage?....		
3. Total funded and unfunded debt.....		
4. Net cash realized from bonded debt, above described		
5. Proportion of debt, bonded and floating, for Wisconsin		

* Unless some good reason exists to the contrary, this proportion—and all other estimates of the same character—should be for the miles of road in this state compared with the whole. If made on a different basis please state the reasons therefor.

COST OF ROAD AND EQUIPMENT.

	Total.	Wisconsin Lines.
1. What amount has been expended for right of way, between Sept. 30, 1876, and Sept. 30, 1877?		
2. What for real estate, and for what purpose purchased?		
3. What has been expended in construction between Sept. 30, 1876, and Sept. 30, 1877?		
4. What for improvement?		
5. What for other items of expense, for construction and equipment? \$31,990 98		
6. What amounts, if any, have been paid for roads or portions of roads, not built by company during the time mentioned?		
7. Total expended between Sept. 30, 1876, and Sept. 30, 1877		
8. Total cost of entire line, as per last report.		
9. Total cost of entire line to date.		

ORIGINAL COST AND PRESENT ESTIMATED VALUE OF TOTAL
PROPERTY IN THIS STATE.

DESCRIPTION OF PROPERTY.	Total.	In Wiscon- sin.
1. What amount has been expended for grading between Sept. 30, 1876, and Sept. 30, 1877		
2. How much for bridges.....do.....		
3. How much for tunnels.....do.....		
4. How much for iron bridges.....do.....		
5. How much for wooden bridges.....do.....		
6. How much for ties and tying.....do.....		
7. How much for iron rails. No. miles .. Lbs. wt. per yard.....		
8. How much for steel rail No. miles... Lbs. weight per yard.....Nothing		
9. How much for chains, spikes, fish-bar..do....		
10. How much for laying track.....do.....		
11. How much for passenger and freight stations, fixtures and furniture, as per schedule. No. stations.....		
12. How much for engine and car shops. No...		
13. How much for machine shops. No....do....		
14. How much for machinery and fixtures.do....		
15. How much for engine houses. No. ....do....		
16. How much for car sheds. No....do....		
17. How much for turn tables. No....do....		
18. How much for track and other scales. No...		
19. How much for wood sheds and water stations. No....		
20. How much for fencing. No. miles....		
21. How much for elevators. No....		
22. How much for locomotives and tenders. No... Av. wt. tons....		
23. How much for snow plows, as per schedule. No... Av. wt. tons....		
24. How much for wreckers. No.. Av. wt. tons		
25. How much for passenger cars, 1st class. No... Av. wt. tons....		
26. How much for passenger cars, 2d class. No. .. Av. wt. tons....		
27. How much for baggage cars. No.. Av. wt. tons....		
28. How much for mail cars. No.. Av. wt. tons		
29. How much for exp. cars. No.. Av. wt. tons		
30. How much for freight cars, closed. No. ... Av. wt. tons ...		
31. How much for platf'm cars. No.. Av. wt. tons		
32. How much for hand cars. No.. Av. wt. tons		
33. How much for machinery and tools to accom- pany trains, repair track, etc., used by track- men or others.....		
34. How much for all other property not enum'd.		
35. Total amount expended between Sept. 30, 1876, and Sept. 30, 1877.....		

CHARACTERISTICS OF ROAD.

LENGTH OF ROAD.	MILES.		Weight of Rail per yard.
	Entire Length.	Length in Wis- consin.	
1. Length of main line of road from Madison to Portage	39	39	say 50
2. Length of double track on main line			lbs per yard
* BRANCHES — Name each.			
3. Length of branch			
From — to — length of double track on branch			
4. Length of branch			
From — to — length of double track on branch			
5. Length of branch			
From — to — length of double track on branch			
6. Length of branch			
From — to — length of double track on branch			
7. Total length of main line and branches ..	39	39	
8. Aggregate length of tracks operated by this company, computed as single track. 39 miles.			
9. Aggregate length of sidings and other track not above numerated. — miles.			
10. Number of junction stations.			
11. What is the gauge of your lines? 4 feet 8½ inches.			

DOINGS OF THE YEAR IN TRANSPORTATION.

CHARACTER OF SERVICE.	No. of persons employed.	Average salary per annum.
1. Division and assistant superintendents		
Clerks in all offices		
Master and assistant mechanics		
Conductors	1	
Engineers	1	
Brakemen	1	
Flagmen, switch-tenders, gate-keepers and watchmen		
Station agents, etc	5	
Section men	25	
Laborers and other employees	4	

* This includes leased lines — designate them as such — the earnings, expenses, etc., of which are given in this report.

Doings of the Year in Transportation—continued.

MILEAGE AND TONNAGE.	MILES.	
	Whole line.	In Wisconsin.
2. Number of miles run by passenger trains		
3. Number of miles run by freight and mixed trains	25,621	25,621
Freight 401; mixed 25,220; mixed freight 16,818; mixed passenger, 8,407.		
4. Number of miles run by construction and other trains.....	700	700
5. Total mileage	26,321	26,321
6. Total number of passengers carried	Included in report of C., M. & St. P. Ry.	
7. Total number tons freight carried one mile ..		
8. Total number passengers carried one mile. ...		
9. Average distance traveled by each passenger.		
Miles per hour.		
10. The highest rate of speed allowed for express passenger trains		
11. Schedule rates of same, including stops		
12. The highest rate of speed allowed for mail and accommodation trains.....	20	
13. Schedule of same, including stops ...	18	
14. The highest rate of speed allowed for freight trains.....		
15. Schedule rate of same, including stops		
16. Amount of freight carried per car.....	Cannot state.	
17. TOTAL FREIGHT IN TONS.		
Grain	Included in report of C., M. & St. Paul Ry. Co.	6,444
Flour		5
Provisions.....		12
Salt, cement, water lime and stucco.....		
Manufactures, including agricultural implements, furniture and wagons.....		4
Live stock.....		478
Lumber and forest products.....		20
Iron, lead, and mineral products.....		
Stone, brick, lime, sand, etc.....		
Coal.....		
Merchandise and other articles.....		481
Total tons.....		7,444

EARNINGS DURING THE YEAR ENDING SEPTEMBER 30, 1877.

MONTHLY EARNINGS FROM ALL SOURCES.

MONTHS.	PASSENGERS.		FREIGHT.		MAILS, EXPRESS, AND ALL OTHER SOURCES.		TOTALS.	
	Whole line.	Wisconsin	Whole line.	Wisconsin	Whole line.	Wisconsin	Whole line.	Wisconsin
1876								
October		\$977 37		\$1,924 68		\$157 53	\$3,059 58	
November		1,278 08		1,994 48		187 18	3,459 69	
December		957 20		1,736 51		59 14	2,752 85	
1877								
January		774 68		2,065 62		196 24	3,036 54	
February		824 36		1,115 27		183 10	2,122 73	
March		908 15		840 46		182 26	1,930 87	
April		1,002 77		1,032 60		231 49	2,266 85	
May		895 95		1,805 45		226 33	2,927 73	
June		1,083 54		2,559 50		182 95	3,825 99	
July		878 88		2,261 27		244 41	3,884 56	
August		1,203 81		2,657 14		226 76	4,087 71	
September		1,231 51		4,317 42		188 41	5,737 34	
Totals		\$12,016 25		\$24,310 40		\$2,265 79	\$38,592 44	

1. Earnings per mile of road ..	\$989 55
2. Earnings per mile of road on freight	623 34
3. Earnings per mile of road on passengers.	308 11
4. Earnings per train-mile run, on freight	1 41
5. Earnings per train-mile run, on passengers.....	1 43
6. Of the earnings of the entire line, what is the ratio of the passenger to the freight? As.....	1 to 2
7. Average gross earnings per mile [39 miles] of road, exclusive of sidings.....	989 55
8. Average net earnings per mile [39 miles] of road, exclusive of sidings	129 38
9. Average net earnings per train-mile	20

EXPENSES DURING THE YEAR ENDING SEPTEMBER 30, 1877.

PAYMENTS FOR CURRENT AND OPERATING EXPENSES.

	Belonging to Whole Line.	Belong- ing to Wiscon- sin.
1. Maintenance of way —		
Repairs of track, including new and re-rolled iron rail in place of old iron rails.....		\$12,058 11
Repairs of bridges		696 52
Repairs of fences.....		461 95
New steel rail, valued only as iron rail*.....		
Other expenses on way.....		
2. Maintenance of buildings.....		107 45
3. Maintenance of rolling stock —		
Locomotives		
Passeng'r, baggage, mail and exp. cars.....		205 63
Freight cars		
Shop tools and machinery.....		
4. Conducting transportation, and general expenses —		
Management and general office.....		4,705 05
Foreign agency and advertising.....		
Agents and station service		5,478 25
Conductors, baggage and brakemen.....		2,475 44
Engineers, firemen and wipers.....		2,265 29
Train and station supplies.....		277 52
Fuel consumed.....		4,205 70
Oil and waste.....		275 53
Personal expenses.....		
Damage to persons.....		
Damage to property.....		87 50
Loss and damage to freight & baggage.....		4 75
Legal expenses.....		
Other general operating expenses.....		45 00
5. Current expenses—		
For taxes		195 00
For insurance.....		
Lease or privilege of other roads whose earnings are included in this report, giving name and amounts paid.....		33,546 69
6. Total current operating expenses, being 87 per cent. of earnings.....		860 17
7. Average operating expenses per mile of road, exclusive of sidings.....		1 81
8. Average operating expenses per train-mile.....		5,045 75
9. Excess of earnings over operating and current expenses.....		50
10. Cost of maintaining track and bridges per mile run.....		
11. Cost of repairs of engines per mile run.....		
12. Cost of engineers and firemen per mile run.....		09
13. Cost of oil and waste per mile run.....		01
14. Cost of fuel per mile run		16

* In substituting steel rail for iron rail, the cost of iron rail only should be charged to operating account, and the excess carried to extraordinary expenses. (See next page.)

Expenses, etc. — continued.

PAYMENTS IN ADDITION TO OPERATING EXPENSES.

	Belonging to whole line.	Belonging to Wisconsin.
15. New steel rail, excess of cost over iron rail, old track		
16. New rail on new track		
17. New equipment		
18. New bridges and culverts (not including replacements)		
19. Real estate bought during the year		
20. New tools and machinery		
21. New buildings		
22. Total paid for new investment on the length of the company's line since date of last report		
23. Amounts paid in cash, stock, bonds, or otherwise, for extensions, new lines and branches, during the past year — specify particularly		
Total new investment		
24. For interest on bonds		
25. Dividends—rate — per cent. — on preferred stock		
26. Dividends—rate — per cent. on common stock		
27. Total payments in addition to operating expenses		
28. What amount of money have you expended for building roads out of the state, from proceeds arising from business done on your roads in this state? None		
29. How was amount of dividends paid the past year — cash, stock or other- wise? Specify amounts and manner of payment. No dividend.		

1. What regulations govern your employees in regard to crossings of other railroads, and are they found to be sufficient?
Same as on C., M. & St. Paul R'y lines.
2. What regulations govern your employees in regard to crossings of public highways? And are these regulations found to be sufficient?
Same as on C., M. & St. Paul R'y lines.
3. What platform and coupler between passenger cars do you use?
Same as on C., M. & St. Paul R'y lines.
4. What kind of brakes do you use on passenger trains?
Hand brakes.

U. S. MAIL.

5. What is the compensation paid you by the U. S. government for the transportation of its mails, and on what terms of service?
\$50 per mile per annum.

EXPRESS COMPANIES.

6. What express companies run on your road, and on what terms, and what conditions as to rates, use of track, machinery, repairs of cars, etc.; what kind of business is done by them, and do you take their freights at the depot, or at the office of such express companies?
Included in C., M. & St. Paul report.

TRANSPORTATION COMPANIES.

7. What freight and transportation companies run on your road and on what terms, and on what conditions as to rates, use of track, machinery, repairs of cars, etc.? Do they use the cars of your company, or those furnished by themselves, and are their cars or their freight given any preference in speed or order of transportation, and if so, in what particular?
None.

SLEEPING CARS.

8. Do sleeping or dining cars run on your road, and if so, on what terms are they run, by whom are they owned, and what charges are made in addition to the regular passenger rates?
None.

ADDITIONAL QUESTIONS.

9. Have you acquired any additional chartered rights or privileges under the special or general laws of this state, directly or indirectly, since your last report?
10. Have you acquired any such additional rights or privileges under the laws, general or special, of any other state, since your last report?
11. Have you acquired any lines in or out of this state, by purchase, lease, consolidation, or otherwise, since your last report? If yes, give full particulars relating thereto, including length of line, location thereof, at what point or place connection is made with old line; terms of purchase or lease, and brief statement of reasons for making such purchase or lease, and whether made by consent of stockholders?

12. Do you, by purchase or ownership of capital stock, or in any other manner, control any other railroad corporation owning or having under its control a parallel or competing line?
13. Does any officer of your company act as the officer of any other railroad corporation, owning or having the control of a parallel or competing line?
14. What running arrangements have you with other railroad companies, setting forth the contracts for the same, made since the date of your last report?
No change.
15. Have you such arrangements with other railroad companies crossing or connecting with your lines, as enable passengers to make close connections with trains on such lines, at all such crossing or connecting points? If so, when were such arrangements made? If not at all such points, state at what points such connections are not made, and the reasons therefor.
16. Have any swamp or other state lands been granted your company since the date of your last report? If so, how many acres?
17. Have any United States lands been granted to your company, directly or indirectly, since the date of your last report? What number acres received by your company, directly or indirectly, since date of last report?
18. What number acres sold and conveyed since date of your last report?
19. Average price per acre realized?
20. To what corporations have you sold land? How much, and what price, since the date of your last report?
21. Number of acres now held by company?
22. Average price asked for lands now held by company?
23. Value of donations of right of way or other real estate received since the date of your last report?
24. Amount of city, county and town aid granted to company in exchange for stock, or otherwise? Specify particulars since date of last report.
25. Total cash amount realized from such aid since date of your last report?
26. Amount of land sold, but not conveyed, under contracts now in force?
27. The whole amount of cash, principal and interest, received for lands hitherto sold and conveyed, since date of last report?
28. Whole amount of cash received, principal and interest, on outstanding contracts, in force since date of last report?
29. Whole amount of cash received, principal and interest, on contracts forfeited, since date of last report?
30. Whole amount of cash received for stumpage, trespasses, etc., since date of last report?
31. What have been your total receipts from lands sold, and contracted to be sold, since the date of last report?
32. What is the aggregate sum of receipts on account of lands, from all sources whatever, up to the present time?
33. What is the amount now due the Company on lands sold, or contracted to be sold?
34. Are there any terminal points or places, on your line, in or out of this State, to and from which the larger portion of the freight transported on your lines is carried? If so, name them.
35. Have you made any advance in the rates of freight, from stations on your lines, to such terminal points, since the enactment of chapter 57 of the laws of 1876?
36. Have you made any reductions in such rates, from any stations, since the passage of said chapter?
If you answer either of the questions in the affirmative, annex to your reply schedules, naming the stations, with distance and rates in force at the time, and since the passage of said chapter, on 1st, 2d, 3d and 4th class of freight, and upon flour, grain, live stock, agricultural implements, salt and coal.

37. * Have you made such advance or reduction on your rates of freight between other stations on your line? If yes, annex a schedule to your reply, showing what the advance or reduction has been on the articles above named.
38. What is your present tariff per mile for passengers, both through and local?
39. What proportion of the passengers carried by you, in this state, purchase round-trip tickets? And what proportion purchase 500-mile tickets?
40. Have you made any advance in the rates of freight for lumber, since the passage of chapter 57 of the laws of 1876? If so, annex to your reply a schedule, naming the stations and rates in force, both at the time and since the passage of said chapter.
41. Has your Company any rule governing your conductors, engineers and trainmen concerning the use of intoxicating liquors? *If so, what is it, and is it enforced?*

* The "distance tariff," with both rates noted thereon, will be a sufficient answer.

[illegible]

1. Of the above accidents, those numbered as follows were caused by broken rails.
Total No.
2. Of the above accidents those numbered as follows were caused by inattention of employees:
Total No.
3. Of the above accidents those numbered as follows were caused by collisions not properly coming under 2:
Total No.
4. Of the above accidents those numbered as follows were caused by explosions:
Total No.
5. Amount paid as damages caused by fire from locomotives.
\$80.00.

NUMBER AND KIND OF FARM-ANIMALS KILLED, AND AMOUNT OF DAMAGES PAID THEREFOR.

	Number Killed.	Amount Paid.
1. Cattle.....	2	\$44 00
2. Horses		
3. Mules.....		
4. Sheep.....		
5. Hogs.....		
6. Total	2	\$44 00

7. Amount claimed yet unsettled, or in litigation..

STATE OF WISCONSIN, *County of Milwaukee*—ss.

S. S. Merrill, General Manager, and R. D. Jennings, Secretary and Treasurer, of the Chicago, Milwaukee & St. Paul Railway Company, lessees of the Madison & Portage Railroad Company, being duly sworn, depose and say that they have caused the foregoing statements to be prepared by the proper officers and agents of this company, and having carefully examined the same, declare them to be a true, full and correct statement of the condition and affairs of said company, on the first day of October, A. D. 1877, to the best of their knowledge and belief. Signed.

[SEAL.]

S. S. MERRELL,
General Manager.
R. D. JENNINGS,
Secretary and Treasurer.

Subscribed and sworn to before me, a notary public, this twenty-second day of November, A. D. 1877.

[SEAL.]

MELBERT B. CARY,
Notary Public.

REPORT
OF THE
PINE RIVER VALLEY & STEVENS POINT RAILROAD COMPANY

For the year ending 30th September, 1877.

OFFICERS AND OFFICES OF THE COMPANY OPERATING.

NAMES.	OFFICES.	ADDRESS.	SAL'RIES
Geo. Krouskop	President.....	Richland Cent'r .....	.....
D. E. Pease.....	1st Vice President.....	Richland Cent'r .....	.....
A. C. Eastland.....	Secretary.....	Richland Cent'r .....	.....
.....	Solicitors .....	.....	.....
D. O. Chandler	Treasurer	Richland Cent'r .....	.....
N. L. James.....	General Manager	Richland Cent'r	\$285 00
.....	General Superitendent..	.....	.....
.....	Chief Engineer.....	.....	.....
.....	General Ticket Agent..	.....	.....
.....	General Freight Agent..	.....	.....
.....	Auditor .....	.....	.....
Total Salaries .....	.....	.....	.....

1. General offices at Richland Center, Wis.

NAMES OF DIRECTORS.	RESIDENCE.
Geo. Krouskop	Richland Center.
D. E. Pease.....	Richland Center.
A. C. Eastland.....	Richland Center.
J. M. Adams	Richland Center.
D. O. Chandler.....	Richland Center.
N. L. James.....	Richland Center.
W. J. Bowen .....	.....
A. C. Parfrey	Richland Center.
A. H. Krouskop	Richland Center.

EXECUTIVE COMMITTEE.

Geo. Krouskop, D. E. Pease, Wm. J. Bowen, A. H. Krouskop, and A. C. Parfrey.

2. Date of annual election of Directors.
June 20.
3. Name and address of person to whom correspondence concerning this report should be directed.
N. L. James.

CAPITAL STOCK.

1. Capital stock authorized by charter..... \$150,000 00
2. How many kinds of stock? One.
3. Amount of common stock..... 50 00
4. Amount of preferred stock.
None.
5. Total capital stock \$50 00
6. Proportion of stock for Wisconsin*..... All.
7. Rate of preference.
None.
8. How much *common* stock has been issued since June 30, 1876.
9. For what purpose? and what was received therefor?
10. How much *preferred* stock has been issued since June 30, 1876.
11. For what purpose? and what was received therefor?

FUNDED AND UNFUNDED DEBT.

	Total.	Wisconsin lines.
1. Describe severally all outstanding classes of bonds, including amount, dates of issue, interest, where and when payable. Dated Aug. 8, 1876, payable in two years from date	\$20,000 00	.....
Interest, ten per cent., payable semi-annually at the Milwaukee National Bank, Milwaukee, Wis.....	2,000 00	.....
2. Amount of debt not secured by mortgage....	4,872 62	.....
3. Total funded and unfunded debt.....	\$26,872 62	.....
4. Net cash realized from bonded debt, above described .....		.....
5. Proportion of debt, bonded and floating, for Wisconsin.....	All.	.....

*Unless some good reason exists to the contrary, this proportion — and all other estimates of the same character — should be for the miles of road in this state compared with the whole. If made on a different basis, please state the reasons therefor.

COST OF ROAD AND EQUIPMENT.

	Total.	Wisconsin lines.
1. What amount has been expended for right of way, during the year ending, Sept. 30, 1877?	\$666 28	.....
2. What for real estate, and for what purpose purchased? None.		
3. What has been expended in construction during the year ending, Sept. 30, 1877?	2,899 97	.....
4. What for improvement? .....		.....
5. What for other items of expense, for construction and equipment?	3,472 36	.....
6. What amounts, if any, have been paid for roads or portions of roads not built by company during the time mentioned?.....		.....
7. Total expended during the year ending, Sept. 30, 1877.....	\$20,860 18	
8. Total cost of entire line, as per last report.....	\$68,469 00	.....
9. Total cost of entire line, to date.....	\$75,007 56	.....

**ORIGINAL COST AND PRESENT ESTIMATED VALUE OF TOTAL
PROPERTY IN THIS STATE.**

DESCRIPTION OF PROPERTY.	Total.	In Wisconsin.
1. What amount has been expended for grading between Sept. 30, 1876, and Sept. 30, 1877.....		
2. How much for bridges.....		
3. How much for tunnels.....		
4. How much for iron bridges.....		
5. How much for wooden bridges.....		
6. How much for ties and tying.....		
7. How much for iron rail, No. miles, 1 $\frac{1}{4}$ lbs. wt. per yard, 80.....	\$3,600 00	
8. How much for steel rail, No. miles, — lbs. wt. per yard.....		
9. How much for chains, spikes, fish-bar, etc., estimate.....	885 00	
10. How much for laying track.....	200 00	
11. How much for passenger and freight stations, fixtures and furniture, as per schedule; No. stations.....	400 00	
12. How much for engine and car shops, No. —.....		
13. How much for machine shops, No. —.....		
14. How much for machinery and fixtures.....		
15. How much for engine houses, No. —.....	400 00	
16. How much for car sheds, No. —.....		
17. How much for turn tables, No. —.....		
18. How much for track and other scales, No. —.....		
19. How much for wood sheds and water stations, estimate No. —.....	50	
20. How much for fencing, — No. miles, — ..	75	
21. How much for elevators, No. —.....		
22. How much for locomotives and tenders, No. —. Av. wt. tons. —.....		
23. How much for snow plows, as per schedule, No. —. Av. wt. tons, —.....	75	
24. How much for wreckers, No. — Av. wt. tons, —.....		
25. How much for passenger cars, 1st class, No. —. Av. wt. tons, —.....		
26. How much for passenger cars, 2d class, No. —. Av. wt. tons, —.....		
27. How much for baggage cars, No. —. Av. wt. tons, —.....		
28. How much for mail cars, No. —. Av. wt. tons, —.....		
29. How much for express cars, No. —. Av. wt. tons, —.....		
30. How much for freight cars, closed, No. —. Av. wt. tons, —.....		
31. How much for platform cars, No. —. Av. wt. tons, —.....		
32. How much for hand cars and push cars, No. —. Av. wt. tons, —.....		
33. How much for machinery and tools to accompany trains, repair track, etc., used by trackmen or others.....		
34. How much for all other property not enumerated.....		
35. Total amount expended between Sept. 30, 1876, and Sept. 30, 1877.....	\$5,185 00	

CHARACTERISTICS OF ROAD.

LENGTH OF ROAD.	MILES.		Weight of rail per yard.
	Entire Length.	Length in Wis- consin.	
1. Length of main line of road from Richland Center to Lone Rock.....	16	16	80 lbs
2. Length of double track on main line.....	.....	.....	.....
*BRANCHES— Name each.			
3. Length of branch .....	.....	.....	.....
From — to —. Length of double track on branch.....	.....	.....	.....
4. Length of branch .....	.....	.....	.....
From — to —. Length of double track on branch.....	.....	.....	.....
5. Length of branch .....	.....	.....	.....
From — to —. Length of double track on branch.....	.....	.....	.....
6. Length of branch .....	.....	.....	.....
From — to —. Length of double track on branch.....	.....	.....	.....
7. Total length of main line and branches.....	.....	.....	.....
8. Aggregate length of tracks operated by this company, computed as single track, 16 miles.			
9. Aggregate length of sidings and other track not above enumerated, one mile.			
10. Number of junction stations, 1 at Lone Rock.			
11. What is the gauge of your lines? Three feet.			

DOINGS OF THE YEAR IN TRANSPORTATION.

CHARACTER OF SERVICE.	Number of persons Employed.	Average salary per annum.
1. Division and assistant superintendents.....	2	\$235
Clerks in all offices.....	.....	.....
Master and assistant mechanics.....	1	.....
Conductors.....	1	.....
Engineers.....	1	.....
Brakemen.....	1	.....
Flagmen, switch-tenders, gate-keepers and watchmen.....	1	.....
Station agents.....	3	.....
Section men.....	8	.....
Laborers.....	.....	.....
Other employees.....	.....	.....

* This includes leased lines— designate them as such—the earnings, expenses, etc., of which are given in this report.

Doings of the Year in Transportation — continued.

MILEAGE AND TONNAGE.	MILES.	
	Whole line.	In Wisconsin.
2. Number of miles run by passenger trains. All trains are mixed.....
3. Number of miles run by freight and mixed trains.....
4. Number of miles run by construction and other trains.....
5. Total mileage
6. Total number of passengers carried.....
7. Total number tons freight carried one mile....
8. Total number passengers carried one mile.....
9. Average distance traveled by each passenger
Miles per hour.		
10. The highest rate of speed allowed for express passenger trains.....	10	.....
11. Schedule rates of same, including stops.....
12. The highest rate of speed allowed for mail and accommodation trains.....
13. Schedule of same, including stops.....
14. The highest rate of speed allowed for freight trains.....
15. Schedule rate of same, including stops.....
16. Amount of freight carried per car.....	5 tons.	.....
17. TOTAL FREIGHT IN TONS.		
Grain.....
Flour.....
Provisions.....
Salt, cement, water-lime and stucco.....
Manufactures, including agricultural implements, furniture and wagons.....
Live stock.....
Lumber and forest products.....
Iron, lead and mineral products.....
Stone, brick, lime, sand, etc.....
Coal.....
Merchandise and other articles.....
Total tons.....

EARNINGS DURING THE YEAR ENDING SEPTEMBER 30, 1877.

MONTHLY EARNINGS FROM ALL SOURCES.

MONTHS.	PASSENGERS.		FREIGHT.		MAILS, EXPR'S, AND ALL OTH'R SOURCES.		TOTALS.	
	Whole Line.	Wis	Whole Line.	Wis	Whole Line.	Wis	Whole Line.	Wis
1876.								
October	\$136 25	...	\$818 56	...	\$58 40	....	\$1,008 21	....
November ...	191 25	....	1,660 17	....	46 00	....	1,887 42	....
December	127 95	....	1,305 00	....	55 55	....	1,488 50	....
1877.								
January	69 15	....	627 40	....	88 60	....	780 15	....
February	177 79	....	856 14	....	274 89	....	1,808 82	....
March	192 20	....	909 86	....	480 20	....	1,584 75	....
April	304 84	....	550 42	....	68 93	....	924 19	....
May	143 05	....	685 25	....	233 76	....	1,062 06	....
June ...	162 06	....	600 07	....	62 85	....	824 97	....
July	291 45	....	698 60	....	241 82	....	1,231 98	....
August	192 10	....	967 74	....	56 60	....	1,216 44	....
September	157 45	....	1,195 69	....	146 45	....	1,499 59	....
Totals...	\$2,145 53	....	\$10,869 48	....	\$1,747 05	....	\$14,762 06	....

1. Earnings per mile of road..... \$.....
2. Earnings per mile of road on freight.....
3. Earnings per mile on passengers.....
4. Earnings per train-mile run, on freight.....
5. Earnings per train-mile run, on passengers.....
6. Of the earnings of the entire line, what is the ratio of the passenger to the freight?..... as .. to ..
7. Average gross earnings per mile [... miles] of road, exclusive of sidings.....
8. Average net earnings per mile [... miles] of road, exclusive of sidings.....
9. Average net earnings per train-mile.....

EXPENSES DURING THE YEAR ENDING SEPTEMBER 30, 1877.

PAYMENTS FOR CURRENT AND OPERATING EXPENSES.	Belonging to whole line	Belonging to Wis.
1. Maintenance of way:		
Repairs of track, including new in place of old rail .....\$3,908 99		
Repairs of bridges.....		
Repairs of fences.....		
New steel rail, vaulted only as iron rail*		
Other expenses on way.....		
2. Maintenance of buildings.....		
Maintenance of rolling stock..... 918 51		
Locomotives.....		
Passenger, baggage, mail and express cars.....		
Freight cars.....		
Shop tools and machinery....		
4. Conducting transportation, and general expenses: } 3,728 94		
Management and general office.....		
Foreign agency and advertising.....		
Agents and station service..... 618 83		
Conductors, bag. and brakemen } 2,811 80		
Engineers, firemen and wipers. }		
Train and station supplies.....		
Fuel consumed..... 1,974 19		
Oil and waste..... 220 84		
	\$14,182 10	
Personal expenses		
Damage to persons.....		
Damage to property.....		
Loss and damage to fr't and bag.....		
Miscellaneous		
Other general operati'g expenses as per items below		
5. Current expenses:		
For taxes.....		
For insurance.....		
Lease or privilege of other roads whose earnings are included in this report, giving name and amounts paid.....		
6. Total current operating expenses, being — per cent. of earnings		
7. Average operating expenses per mile of road, exclusive of sidings.....		
8. Average operating expenses per train mile ...		
9. Excess of earnings over operating and current expenses		
10. Cost of maintaining track and bridges per mile run.....		
11. Cost of repairs of engines and cars per mile run.....		
12. Cost of engineers and firemen per mile run...		
13. Cost of oil and waste per mile run.....		
14. Cost of fuel per mile run.....		

*In substituting steel rail for iron rail, the cost of iron rail only should be charged to operating account, and the excess carried to extraordinary expenses. (See next page.)

Expenses, etc. — continued.

PAYMENTS IN ADDITION TO OPERATING EXPENSES.

	Belonging to whole line.	Belonging to Wisconsin.
15. New steel rail, excess of cost over iron rail, old track
16. New rail on new track
17. New equipment
18. New bridges and culverts (not including replacements)
19. Real estate bought during the year
20. New tools and machinery
21. New buildings
22. Total paid for new investment on the length of the company's line since date of last report
23. Amounts paid in cash, stock, bonds, or otherwise, for extensions, new lines and branches, during the past year — specify particularly
Total new investment
24. For interest on bonds
25. Dividends—rate — per cent. — on preferred stock
26. Dividends—rate — per cent. on common stock
27. Total payments in addition to operating expenses
28. What amount of money have you expended for building roads out of the state, from proceeds arising from business done on your roads in this state?
29. How was amount of dividends paid the past year — cash, stock or other- wise? Specify amounts and manner of payment.		

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1. What regulations govern your employees in regard to crossings of other railroads, and are they found to be sufficient?
2. What regulations govern your employees in regard to crossings of public highways? And are these regulations found to be sufficient?
3. What platform and coupler between passenger cars do you use?
4. What kind of brakes do you use on passenger trains?

U. S. MAIL.

5. What is the compensation paid you by the U. S. government for the transportation of its mails, and on what terms of service?
\$740 per annum. The rate is fixed by weight.

EXPRESS COMPANIES.

6. What express companies run on your road, and on what terms, and what conditions as to rates, use of track, machinery, repairs of cars, etc.; what kind of business is done by them, and do you take their freights at the depot, or at the office of such express companies?

TRANSPORTATION COMPANIES.

7. What freight and transportation companies run on your road, and on what terms, and on what conditions as to rates, use of track, machinery, repairs of cars, etc.? Do they use the cars of your company, or those furnished by themselves, and are their cars or their freight given any preference in speed or order of transportation, and if so, in what particular?

SLEEPING CARS.

8. Do sleeping or dining cars run on your road, and if so, on what terms are they run, by whom are they owned, and what charges are made in addition to the regular passenger rates?

ADDITIONAL QUESTIONS.

9. Have you acquired any additional chartered rights or privileges under the special or general laws of this state, directly or indirectly, since your last report?
10. Have you acquired any such additional rights or privileges under the general or special, of any other state, since your last report?
11. Have you acquired any lines in or out of this state, by purchase, lease, consolidation, or otherwise, since your last report? If ye, give full particulars relating thereto, including length of line, location thereof, at what point or place connection is made with old line; terms of purchase or lease, and brief statement of reasons for making such purchase or lease, and whether made by consent of stockholders?
12. Do you, by purchase or ownership of capital stock, or in any other manner, control any other railroad corporation owning or having under its control a parallel or competing line?
13. Does any officer of your company act as the officer of any other railroad corporation, owning or having the control of a parallel or competing line?
14. What running arrangements have you with other railroad companies, setting forth the contracts for the same, made since the date of your last

with other railroad companies crossing or

1. What regulations govern your employees in regard to crossings of other railroads, and are they found to be sufficient?
2. What regulations govern your employees in regard to crossings of public highways? And are these regulations found to be sufficient?
3. What platform and coupler between passenger cars do you use?
4. What kind of brakes do you use on passenger trains?

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5. What is the compensation paid you by the U. S. government for the transportation of its mails, and on what terms of service?
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SLEEPING CARS.

8. Do sleeping or dining cars run on your road, and if so, on what terms are they run, by whom are they owned, and what charges are made in addition to the regular passenger rates?

ADDITIONAL QUESTIONS.

9. Have you acquired any additional chartered rights or privileges under the special or general laws of this state, directly or indirectly, since your last report?
10. Have you acquired any such additional rights or privileges under the general or special, of any other state, since your last report?
11. Have you acquired any lines in or out of this state, by purchase, lease, consolidation, or otherwise, since your last report? If ye, give full particulars relating thereto, including length of line, location thereof, at what point or place connection is made with old line; terms of purchase or lease, and brief statement of reasons for making such purchase or lease, and whether made by consent of stockholders?
12. Do you, by purchase or ownership of capital stock, or in any other manner, control any other railroad corporation owning or having under its control a parallel or competing line?
13. Does any officer of your company act as the officer of any other railroad corporation, owning or having the control of a parallel or competing line?
14. What running arrangements have you with other railroad companies, setting forth the contracts for the same, made since the date of your last report?
15. Have you such arrangements with other railroad companies crossing or connecting with your lines, as enable passengers to make close connections with trains on such lines, at all such crossing or connecting points? If so, when were such arrangements made? If not at all such points, state at what points such connections are not made, and the reasons therefor.

16. Have any swamp or other state lands been granted your company since the date of your last report? If so, how many acres?
17. Have any United States lands been granted to your company, directly or indirectly, since the date of your last report? What number acres received by your company, directly or indirectly, since date of last report?
18. What number acres sold and conveyed since date of your last report?
19. Average price per acre realized?
20. To what corporations have you sold land? How much, and what price, since the date of your last report?
21. Number of acres now held by company?
22. Average price asked for lands now held by company?
23. Value of donations of right of way or other real estate received since the date of your last report?
24. Amount of city, county and town aid granted to company in exchange for stock, or otherwise? Specify particulars since date of last report.
25. Total cash amount realized from such aid since date of your last report?
26. Amount of land sold, but not conveyed, under contracts now in force?
27. The whole amount of cash, principal and interest, received for lands hitherto sold and conveyed, since date of last report?
28. Whole amount of cash received, principal and interest, on outstanding contracts in force, since date of last report?
29. Whole amount of cash received, principal and interest, on contracts forfeited, since date of last report?
30. Whole amount of cash received for stumpage, trespasses, etc., since date of last report?
31. What have been your total receipts from lands sold, and contracted to be sold, since the date of last report?
32. What is the aggregate sum of receipts on account of lands, from all sources whatever, up to present time?
33. What is the amount now due the Company on lands sold, or contracted to be sold?
34. Are there any terminal points or places, on your lines in, or out, of this state, to and from which the larger portion of the freight transported on your line is carried? If so, name them.
35. Have you made any advance in the rates of freight, from stations on your lines, to such terminal points since the enactment of chapter 57 of laws of 1876?
36. Have you made any reductions in such rates, from any stations, since the passage of said chapter?
If you answer either of the questions in the affirmative, annex to your reply schedules, naming the stations, with distance and rates in force at the time, and since the passage of said chapter, on 1st, 2d, 3d and 4th class of freight, and upon flour, grain, live stock, agricultural implements, salt, and coal.
37. *Have you made such advance or reduction on your rates of freight between other stations on your line? If yes, annex a schedule to your reply, showing what the advance or reduction has been on the articles above named.
38. What is your present tariff per mile for passengers, both through and local?
39. What proportion of the passengers carried by you, in this State, purchase round trip tickets? And what proportion purchase 500-mile tickets?
40. Have you made any advance in the rates of freight for lumber, since the passage of chapter 57, of the laws of 1876? If so, annex to your reply a schedule, naming the stations and rates in force both at the time and since the passage of said chapter.
41. Has your Company any rule governing your conductors, engineers and trainmen concerning the use of intoxicating liquors? If so, what is it, and is it enforced?

* The "distance tariff," with both rates noted thereon, will be a sufficient answer.

ACCIDENTS.

[illegible]

1. Of the above accidents, those numbered as follows were caused by broken rails.
Total No....
2. Of the above accidents those numbered as follows were caused by inattention of employees:
Total No....
3. Of the above accidents those numbered as follows were caused by collisions not properly coming under 2:
Total No....
4. Of the above accidents those numbered as follows were caused by explosions:
Total No....
5. Amount paid as damages caused by fire from locomotives.

NUMBER AND KIND OF FARM-ANIMALS KILLED, AND AMOUNT OF DAMAGES PAID THEREFOR.

	Number Killed.	Amount Paid.
1. Cattle.....	4	\$16 00
2. Horses		
3. Mules.....		
4. Sheep.....		
5. Hogs.....		
6. Total	4	\$16 00

7. Amount claimed yet unsettled, or in litigation..

STATE OF WISCONSIN. *County of Richland*—ss.

N. L. James, Superintendent of the Pine River Valley and Stevens Point Railroad Co., and George Krouskop, President of the said Railroad being duly sworn, depose and say that they have caused the foregoing statements to be prepared by the proper officers and agents of this company, and having carefully examined the same, declare them to be a true, full and correct statement of the condition and affairs of said company, on the first day of October, A. D. 1877, to the best of their knowledge and belief.

Signed.

[SEAL]

N. L. JAMES,
Superintendent.
GEO. KROUSKOP,
President.

Subscribed and sworn to before me, a notary public, this sixteenth day of November, A. D. 1877.

[SEAL]

FRED H. TUTTLE,
Notary Public, Richland county, Wis.

REPORT
OF THE
PRAIRIE DU CHIEN & M'GREGOR RAILWAY COMPANY,

For the year ending 30th September, 1877.

OFFICERS AND OFFICES OF THE COMPANY OPERATING.

NAMES.	OFFICES.	ADDRESS.	SALARIES.
John Lawler	President.....	Prairie du Chien	\$6,000
.....	1st Vice-President .....	.....	.....
J. D. Lawler.....	Secretary and Treasurer .....	.....	1,200
.....	Solicitor .....	.....	.....
J. D. Lawler.....	Treasurer.....	.....	.....
.....	General Manager .....	.....	.....
S. E. Farnham.....	General Superintendent.....	.....	1,200
.....	Chief Engineer .....	.....	.....
.....	General Ticket Agent.....	.....	.....
.....	General Freight Agent.....	.....	.....
.....	Auditor .....	.....	.....
Total salaries.....	.....	.....	\$8,400

1. General offices at Prairie du Chien, Wis.

NAMES OF DIRECTORS.	RESIDENCE.
John Lawler.....	Prairie du Chien.
J. D. Lawler.....	Prairie du Chien.
James Lawler	Prairie du Chien.
S. E. Farnham.....	Prairie du Chien.
Geo. L. Bass.....	McGregor, Ia.

EXECUTIVE COMMITTEE.

2. Date of annual election of directors.
3. Name and address of person to whom correspondence, concerning this report, should be directed.
John D. Lawler.

CAPITAL STOCK.

1. Capital stock authorized by charter.
\$100,000.
2. How many kinds of stock?
One.
3. Amount of common stock \$100,000 00
4. Amount of preferred stock.....
5. Total capital stock \$100,000 00
6. *Proportion of stock for Wisconsin, $\frac{1}{8}$ of whole line... .. \$87,500 00
7. Rate of preference.
8. How much *common* stock has been issued during the year ending September 30, 1876?
9. For what purpose? and what was received therefor?
10. How much *preferred* stock has been issued during the year ending September 30, 1876?
11. For what purpose? and what was received therefor?

FUNDED AND UNFUNDED DEBT.

	Total.	Wisconsin Lines.
1. Describe severally all outstanding classes of bonds, including amounts, dates of issue, interest, where and when payable.....		
2. Amount of debt not secured by mortgage?.....		
3. Total funded and unfunded debt.....	None.	
4. Net cash realized from bonded debt, above described.....		
5. Proportion of debt, bonded and floating, for Wisconsin		

* Unless some good reason exists to the contrary, this proportion—and all other estimates of the same character—should be for the mileage of road in this state compared with the whole. If made on a different basis please state the reason therefor.

COST OF ROAD AND EQUIPMENT.

	Total.	Wisconsin Lines.
1. What amount has been expended for right of way during the year ending Sept. 30, 1877...
2. What for real estate, and for what purpose purchased?.....
3. What has been expended in construction during the year ending Sept. 30, 1877.....
4. What for improvement?.....
5. What for other items of expense, for construction and equipment.....
6. What amounts, if any, have been paid for roads or portions of roads not built by company during the time mentioned.....
7. Total expended between Sept. 30, 1876, and Sept. 30, 1877.....
8. Total cost of entire line, as per last report....
9. Total cost of entire line to date.. ..	\$100,000 00	.....

ORIGINAL COST AND PRESENT ESTIMATED VALUE OF TOTAL
PROPERTY IN THIS STATE IS \$87,500.00.

DESCRIPTION OF PROPERTY.	Total.	In Wisconsin.
1. What amount has been expended for grading between Sept. 30, 1876, and Sept. 30, 1877...		
2. How much for bridges.....		
3. How much for tunnels.....		
4. How much for iron bridges.....		
5. How much for wooden bridges.....		
6. How much for ties and tying.....		
7. How much for iron rail, — No. miles, — lbs. wt per yard.....		
8. How much for steel rail, — No. miles, — lbs. wt. per yard.....		
9. How much for chains, spikes, fish-bar, etc....		
10. How much for laying track.....		
11. How much for passenger and freight stations, fixtures and furniture, as per schedule, No. stations.....		
12. How much for engine and car shops, No. —.....		
13. How much for machine shops, No. —.....		
14. How much for machinery and fixtures.....		
15. How much for engine houses, No. —.....		
16. How much for car sheds, No. —.....		
17. How much for turn tables, No. —.....		
18. How much for track and other scales, No. —.....		
19. How much for wood sheds and water stations, No. —.....		
20. How much for fencing, No. miles —.....		
21. How much for elevators, No. —.....		
22. How much for locomotives and tenders, No. —, av. wt. tons.....		
23. How much for snow plows, as per schedule, No. —, av. wt. tons.....		
24. How much for wreckers, No. —, av. wt. tons.....		
25. How much for passenger cars, 1st class, No. —, av. wt. tons.....		
26. How much for passenger cars, 2d class, No. —, Av. wt. tons.....		
27. How much for baggage cars, No. —, av. wt. tons.....		
28. How much for mail cars, No. —, Av. wt. tons.....		
29. How much for express cars, No. —, av. wt. tons.....		
30. How much for freight cars closed, No. —, Av. wt. tons.....		
31. How much for platform cars, No. —, Av. wt. tons.....		
32. How much for hand cars, No. —, Av. wt. tons.....		
33. How much for machinery and tools to accompany trains, repair track, etc., used by trackmen or others.....		
34. How much for all other property not enumerated.....		
35. Total amount expended between Sept. 30, 1876, and Sept. 30, 1877.....		

CHARACTERISTICS OF THE ROAD.

LENGTH OF ROAD.	MILES.		Weight of Rail per yard.
	Entire Length.	Length in Wis- consin.	
1. Length of main line of road from Prairie du Ch'n to State li. e.		1 $\frac{1}{2}$	56
2. Length of double track on main line.....		$\frac{1}{2}$	.....
* BRANCHES — Name each.			
3. Length of branch.....			
From — to —. Length of double track on branch			
4. Length of branch.....			
From — to —. Length of double track on branch			
5. Length of branch.....			
From — to —. Length of double track on branch			
6. Length of branch.....			
From — to —. Length of double track on branch			
7. Total length of main line and branches.....			
8. Aggregate length of tracks operated by this company <i>computed as single</i> <i>track, 2$\frac{1}{2}$ miles.</i>			
9. Aggregate length of sidings and other track not above enumerated.			
10. Number of junction stations.			
11. What is the gauge of your line? 4 feet, 8 $\frac{1}{2}$ inches.			

DOINGS OF THE YEAR IN TRANSPORTATION.

CHARACTER OF SERVICE.	No. of Per'ns em- ployed.	Av. Salary per An- num.
1. Division and assistant superintendents	1	\$1,200
Clerks in all offices.....	1	1,200
Master and assistant mechanics.....	1	900
Condu tors	1	1,200
Engineers	3	900
Brakemen	2	600
Flagmen, switch-tenders, gate-keepers and watch- men.....	4	600
Station agents		
Section men employed of Chic. M. & St. P. R'y..	6	.....
Laborers	2	500
Other employes		

*This includes leased lines — designate them as such — the earnings, expenses, etc., of which are given in this report.

Doings of the Year in Transportation—continued.

NO RECORD MADE.

MILEAGE AND TONNAGE.	MILES.	
	Whole Line.	In Wisc'nsin
2. No. of miles run by passenger trains.....
3. No. of miles run by freight and mixed trains.....
4. No. of miles run by constr'n and other trains.....
5. Total mileage
6. Total No. of passengers carried
7. Total No. tons freight carried one mile
8. Total No. passengers carried one mile.....
9. Average distance traveled by each passenger.....
Miles per hour.		
10. The highest rate of speed allowed for express passenger trains
11. Schedule rate of same, including stops
12. The highest rate of speed allowed for mail and accomodation trains
13. Schedule of same, including stops.....
14. The highest rate of speed allowed for freight trains
15. Schedule rate of same, including stops.....
16. Amount of freight carried per car
17. TOTAL FREIGHT IN TONS.	WHOLE LINE.	IN WIS.
Grain
Flour
Provisions.....
Salt, cement, water lime and stucco.....
Manufactures, including agricultural implements, furniture and wagons.....
Live stock.....
Lumber and forest products.....
Iron, lead and mineral products.....
Stone, brick, lime, sand, etc.....
Coal.....
Merchandize and other articles
Total tons

EARNINGS DURING THE YEAR ENDING SEPTEMBER 30, 1877.

MONTHLY EARNINGS FROM ALL SOURCES.

MONTHS.	PASSENGERS.		FREIGHT.		MAILS, EXPRESS, AND ALL OTHER SOURCES.		TOTALS.	
	Whole line.	Wisconsin.	Whole line.	Wisconsin.	Whole line.	Wisconsin.	Whole line.	Wisconsin.
1876								
October	\$280 00		\$3,928 00					
November	294 00		4,704 00					
December	805 00		8,707 00					
1877								
January	297 00		1,718 00					
February	266 00		1,978 00					
March	223 00		1,831 00					
April	293 00		2,880 00					
May	300 00		2,895 00					
June	269 00		2,031 00					
July	310 00		1,825 00					
August	272 00		4,197 00					
September	275 00		9,825 00					
Totals	\$3,884 00		40,514 00					

1. Earnings per mile of road
2. Earnings per mile of road on freight
3. Earnings per mile of road on passengers
4. Earnings per train-mile run, on freight
5. Earnings per train-mile run, on passengers
6. Of the earnings of the entire line, what is the ratio of the passenger to the freight? As
7. Average gross earnings per mile [— miles] of road, exclusive of sidings
8. Average net earnings per mile [— miles] of road, exclusive of sidings
9. Average net earnings per train-mile

EXPENSES DURING THE YEAR ENDING SEPTEMBER 30, 1877.

PAYMENTS FOR CURRENT AND OPERATING EXPENSES.

	Belonging to Whole Line.	Belonging to Wisconsin.
1. Maintenance of way —		
Repairs of track, including new and re-rolled iron rail in place of old iron rails.....	\$2,100 00	
Repairs of bridges	3,450 00	
Repairs of fences.....		
New steel rail, valued only as iron rail*		
Other expenses on way, 500 cords stone	1,750 00	
2. Maintenance of buildings —	\$7,880 00	
3. Maintenance of rolling stock — Furnished by C. M. & St. Paul R'y —		
Locomotives		
Passeng'r, baggage, mail and exp. cars ..		
Freight cars		
Shop tools and machinery.....		
4. Conducting transportation, and general expenses —		
Management and general office.....	8,400 00	
Foreign agency and advertising.....		
Agents and station service		
Conductors, baggage and brakemen, watchmen, &c.....	11,200 00	
Engineers, firemen and wipers.....	1,800 00	
Train and station supplies		
Fuel consumed.....	8,800 00	
Oil and waste	170 00	
Personal expenses.....	620 00	
	\$25,990 00	
Damage to persons.....		
Damage to property.....		
Loss and damage to freight & baggage.....		
Legal expenses.....		
Other general operating expenses.....		
5. Current expenses —		
For taxes, Wisconsin, \$774.20; Iowa, \$140.00	\$914.20	
For insurance, fire.....	215.00	
	\$1,129 20	
Lease or privilege of other roads whose earnings are included in this report, giving name and amounts paid.....		
6. Total current operating expenses, being — per cent. of earnings	\$34,449 20	
7. Average operating expenses per mile of road, exclusive of sidings.....		
8. Average operating expenses per train-mile.....		
9. Excess of earnings over operating and current expenses	\$9,448 80	
10. Cost of maintaining track and bridges per mile run		
11. Cost of repairs of engines per mile run.....		
12. Cost of engineers and firemen per mile run.....		
13. Cost of oil and waste per mile run.....		
14. Cost of fuel per mile run		

Seven-eighths of whole line.

* In substituting steel rail for iron rail, the cost of iron rail only should be charged to operating account, and the excess carried to extraordinary expenses. (See next page.)

Expenses, etc.—continued.

PAYMENTS IN ADDITION TO OPERATING EXPENSES.*

	Belonging to Whole Line.	Belonging to Wisconsin.
15. New steel rails, excess of cost over iron rail, old track		
16. New rail on new track		
17. New equipment		
18. New bridges and culverts (not including replacements)		
19. Real estate bought during the year		
20. New tools and machinery		
21. New buildings		
22. Total paid for new investment on the length of the company's lines since date of last report		
23. Amounts paid in cash, stock, bonds, or otherwise, for extensions, new lines and branches, during the past year—specify particulars		
Total new investments		
24. For interest on bonds etc.		
25. Dividends—rate — per cent.—on preferred stock		
26. Dividends—rate — per cent.—on common stock		
Total payments in addition to operating expenses		
28. What amount of money have you expended for building roads out of the state, from proceeds arising from business done on your roads in this state?		

29. How was amount of dividends paid the past year—cash, stock or other wise? Specify amounts and manner of payment.

* After \$100 000, amount of stock subscribed, had been paid for building the road, expenses of all kinds were paid from the earnings, and charged to "operating expenses."

GENERAL BALANCE SHEET, 1st OF OCTOBER, 1877.

ASSETS.	DOLLARS.		Cts.		LIABILITIES.		DOLLARS.		Cts.	
Value of road		\$100,000		....	Amount of stock		\$100,000		....	....
.....			
.....			
.....			
.....			
.....				Total.....		\$100,000		....	....
.....									
Total.....		\$100,000		....					

1. What regulations govern your employees in regard to crossings of other railroads, and are they found to be sufficient?
2. What regulations govern your employees in regard to crossings of public highways? And are these regulations found to be sufficient?
3. What platform and coupler between passenger cars do you use?
4. What kind of brakes do you use on passenger trains?

U. S. MAIL.

5. What is the compensation paid you by the U. S. government for the transportation of its mails, and on what terms of service?

EXPRESS COMPANIES.

6. What express companies run on your road, and on what terms, and what conditions as to rates, use of track, machinery, repairs of cars, etc.; what kind of business is done by them, and do you take their freights at the depot, or at the office of such express companies?

TRANSPORTATION COMPANIES.

7. What freight and transportation companies run on your road and on what terms, and on what conditions as to rates, use of track, machinery, repairs of cars, etc.? Do they use the cars of your company, or those furnished by themselves, and are their cars or their freight given any preference in speed or order of transportation, and if so, in what particular?

SLEEPING CARS.

8. Do sleeping or dining cars run on your road, and if so, on what terms are they run, by whom are they owned, and what charges are made in addition to the regular passenger rates?

ADDITIONAL QUESTIONS.

9. Have you acquired any additional chartered rights or privileges under the special or general laws of this state, directly or indirectly, since your last report?
10. Have you acquired any such additional rights or privileges under the laws, general or special, of any other state, since your last report?
11. Have you acquired any lines in or out of this State, by purchase, lease, consolidation or otherwise, since your last report? If yes, give full particulars relating thereto, including length of line, location thereof, at what point or place connection is made with old line; terms of purchase or lease, and brief statement of reasons for making such purchase or lease, and whether made by consent of stockholders?
12. Do you, by purchase or ownership of capital stock, or in any other manner, control any other railroad corporation owning or having under its control a parallel or competing line?
13. Does any officer of your company act as the officer of any other railroad corporation, owning or having the control of a parallel or competing line?
14. What running arrangements have you with other railroad companies, setting forth the contracts for the same, made since the date of your last report?
15. Have you such arrangements with other railroad companies crossing or connecting with your lines, as enable passengers to make close connections with trains on such lines, at all such crossing or connecting points? If so, when were such arrangements made? If not at all such points, state at what points such connections are not made, and the reasons therefor?

16. Have any swamp or other State lands been granted your Company since the date of your last report? If so, how many acres?
17. Have any United States lands been granted to your Company, directly or indirectly, since the date of your last report? What number acres received by your Company, directly or indirectly, since date of last report?
18. What number acres sold and conveyed since date of your last report?
19. Average price, per acre, realized?
20. To what corporations have you sold land? How much, and what price, since the date of your last report?
21. Number of acres now held by Company?
22. Average price asked for lands now held by Company?
23. Value of donations of right of way or other real estate received since the date of your last report?
24. Amount of city, county and town aid granted to Company in exchange for stock, or otherwise? Specify particulars since date of last report?
25. Total cash amount realized from such aid since date of your last report?
26. Amount of land sold, but not conveyed, under contracts now in force?
27. The whole amount of cash, principal and interest, received for lands hitherto sold and conveyed, since date of last report?
28. Whole amount of cash received, principal and interest, on outstanding contracts, in force since date of last report?
29. Whole amount of cash received, principal and interest, on contracts forfeited, since date of last report?
30. Whole amount of cash received for stumpage, trespasses, etc., since date of last report?
31. What have been your total receipts from lands sold, and contracted to be sold, since the date of last report?
32. What is the aggregate sum of receipts on account of lands, from all sources whatever, up to the present time?
33. What is the amount now due the Company on lands sold, or contracted to be sold?
34. Are there any terminal points or places, on your line, in or out of this State, to and from which the larger portion of the freight transported on your lines is carried? If so, name them.
35. Have you made any advance in the rates of freight, from stations on your lines, to such terminal points, since the enactment of chapter 57 of the laws of 1876?
36. Have you made any reductions in such rates, from any stations, since the passage of said chapter?
If you answer either of the questions in the affirmative, annex to your reply schedules, naming the stations, with distance and rates in force at the time, and since the passage of said chapter, of 1st, 2d, 3d and 4th class of freight, and upon flour, grain, live stock, agricultural implements, salt and coal.
37. * Have you made such advance or reduction on your rates of freight between other stations on your line? If yes, annex a schedule to your reply, showing what the advance or reduction has been on the articles above named.
38. What is your present tariff per mile for passengers, both through and local?
39. What proportion of the passengers carried by you, in this state, purchase round-trip tickets? And what proportion purchase 500 mile tickets?
40. Have you made any advance in the rates of freight for lumber, since the passage of chapter 57 of the laws of 1876? If so, annex to your reply a schedule, naming the stations and rates in force, both at the time and since the passage of said chapter.
41. Has your Company any rule governing your conductors, engineers and trainmen concerning the use of intoxicating liquors? If so, what is it, and is it enforced?

* The "distance tariff," with both rates noted thereon, will be a sufficient answer.

[illegible]

1. Of the above accidents, those numbered as follows were caused by broken rails.
Total No.....
2. Of the above accidents those numbered as follows were caused by inattention of employees:
Total No.....
3. Of the above accidents those numbered as follows were caused by collisions not properly coming under 2:
Total No.....
4. Of the above accidents those numbered as follows were caused by explosions:
Total No.....
5. Amount paid as damages caused by fire from locomotives....

NUMBER AND KIND OF FARM-ANIMALS KILLED, AND AMOUNT OF DAMAGES PAID THEREFOR.

	Number Killed.	Amount Paid.
1. Cattle
2. Horses
3. Mules
4. Sheep
5. Hogs
6. Total

7. Amount claimed yet unsettled, or in litigation.

REMARKS.

STATE OF WISCONSIN, }
County of Crawford, } ss.

I, J. D. Lawler, Secretary and Treasurer of the Prairie du Chien and McGregor Railway Company, being duly sworn, depose and say, that I have caused the foregoing statements to be prepared by the proper officers and agents of this company, and having carefully examined the same, declare them to be a true, full and correct statement of the condition and affairs of said company, on the first day of October, A. D. 1877, to the best of my knowledge and belief.

[SEAL.]

Signed.

J. D. LAWLER.

Subscribed and sworn to before me, this 7th day of January A. D. 1878.

[SEAL.]

L. F. S. VIELE,
Notary Public, Iowa Co., Wis.

REPORT
OF THE
SHEBOYGAN & FOND DU LAC RAILROAD COMPANY

For the year ending 30th September, 1877.

OFFICERS AND OFFICES OF THE COMPANY OPERATING.

NAMES.	OFFICES.	ADDRESS.	SAL'RIES
D. L. Wells.....	President.....	.....	.....
A. G. Ruggles.....	1st Vice President.....	.....	.....
Edwin Slade.....	Secretary.....	.....	.....
E. Mariner.....	Solicitor.....	.....	.....
A. G. Ruggles.....	Treasurer.....	.....	.....
.....	General Manager.....	.....	.....
Geo. P. Lee.....	General Superitendent..	.....	\$2,500
.....	Chief Engineer.....	.....	.....
M. Ewen.....	General Ticket Agent..	.....	1,200
T. H. Malone.....	General Freight Agent..	.....	2,000
John C. Waterbury.....	Auditor.....	.....	1,000
Total Salaries.....	.....	.....	\$6,700

1. General offices at Fond du Lac, Wis.

NAMES OF DIRECTORS.	RESIDENCE.
D. L. Wells.....	Milwaukee.....
E. Mariner.....	Milwaukee.....
Moses Taylor.....	New York.....
R. G. Rolston.....	New York.....
J. F. Joy.....	Detroit, Mich.....
A. G. Ruggles.....	Fond du Lac, Wis..
Edwin Slade.....	Glenbulah, Wis ..

EXECUTIVE COMMITTEE.

2. Date of annual election of directors. Third Wednesday in January.
3. Name and address of person to whom correspondence, concerning this report, should be directed,
Geo. P. Lee, Supt., Fond du Lac, Wis.

CAPITAL STOCK.

1. Capital stock authorized by charter..... \$1,550,000 00
2. How many kinds of stock? One.
3. Amount of common stock..... 1,410,500 00
4. Amount of preferred stock.
None.
5. Total capital stock \$1,410,500 00
6. Proportion of stock for Wisconsin*..... All.
7. Rate of preference.
None.
8. How much *common* stock has been issued during the year ending Sept. 30, 1877?
None.
9. For what purpose? and what was received therefor?
No.
10. How much *preferred* stock has been issued since Sept. 30, 1876?
None.
11. For what purpose? and what was received therefor?

FUNDED AND UNFUNDED DEBT.

	Total.	Wisconsin linea.
1. Describe severally all outstanding classes of bonds, including amount, dates of issue, interest, where and when payable.		
7 per cent. bonds payable at Bank of North America, N. Y., June 1, 1884.....	\$750,000 00	
8 per cent. bonds payable at Farmers' Loan & Trust Co., N. Y., Oct. 1, 1896.....	850,000 00	
2. Amount of debt not secured by mortgage....	89,401 00	
3. Total funded and unfunded debt.....	\$1,689,401 00	
4. Net cash realized from bonded debt, above described		\$617,600 00
\$772,000 8 per cent. bonds sold at 80 per cent.		
\$78,000 8 per cent. bonds hypothecated.		
\$750,000 7 per cent. issued at par for construction.		
5. Proportion of debt, bonded and floating, for Wisconsin.....		750,000 00

* Unless some good reason exists to the contrary, this proportion—and all other estimates of the same character—should be for the miles of road in this state compared with the whole. If made on a different basis please state the reasons therefor.

COST OF ROAD AND EQUIPMENT.

	Total.	Wisconsin Lines.
1. What amount has been expended for right of way, between Sept. 30, 1876, and Sept. 30, 1877?	\$3,959 45 .....	.....
2. What for real estate, and for what purpose purchased? .....	.....	.....
3. What has been expended in construction between Sept. 30, 1876, and Sept. 30, 1877?	1,331 81 .....	.....
4. What for improvement? .....	.....	.....
5. What for other items of expense, for construction and equipment?	1,044 35 .....	.....
6. What amounts, if any, have been paid for roads or portions of roads, not built by company during the time mentioned? .....	.....	.....
.....
7. Total expended between Sept. 30, 1876, and Sept. 30, 1877	\$6,335 11 .....	.....
8. Total cost of entire line, as per last report.	\$2,849,403 25 .....	.....
9. Total cost of entire line to date	\$2,855,737 86 .....	.....

**ORIGINAL COST AND PRESENT ESTIMATED VALUE OF TOTAL
PROPERTY IN THIS STATE.**

DESCRIPTION OF PROPERTY.	Total.	In Wiscon- sin.
1. What amount has been expended for grading between Sept. 30, 1876, and Sept. 30, 1877 ...		
2. How much for bridges.....do...		
3. How much for tunnels.....do...		
4. How much for iron bridges.....do...		
5. How much for wooden bridges.....do...		
6. How much for ties and tying.....do...		
7. How much for iron rails. No. miles .. Lbs. wt. per yard.....do...		
8. How much for steel rail No. miles .. Lbs. weight per yard.....do... Nothing		
9. How much for chains, spikes, fish-bar..do...		
10. How much for laying track.....do...		
11. How much for passenger and freight stations, fixtures and furniture, as per schedule. No. stations....do...		
12. How much for engine and car shops. No..do...		
13. How much for machine shops. No....do...		
14. How much for machinery and fixtures.do...		
15. How much for engine houses. No. ....do...		
16. How much for car sheds. No....do...		
17. How much for turn tables. No....do...		
18. How much for track and other scales. No..do...		
19. How much for wood sheds and water stations. No....do...		
20. How much for fencing. No. miles....do...		
21. How much for elevators. No....do...		
22. How much for locomotives and tenders. No.... Av. wt. tons....do...		
23. How much for snow plows, as per schedule. No.... Av. wt. tons....do...		
24. How much for wreckers. No.. Av. wt. tons		
25. How much for passenger cars, 1st class. No.... Av. wt. tons....do...		
26. How much for passenger cars, 2d class. No. .. Av. wt. tons....do...		
27. How much for baggage cars. No.. Av. wt. tons....do...		
28. How much for mail cars. No.. Av. wt. tons		
29. How much for exp. cars. No.. Av. wt. tons		
30. How much for freight cars, closed. No. Av. wt. tons ....do...		
31. How much for platf'm cars. No.. Av. wt. tons		
32. How much for hand cars. No.. Av. wt. tons		
33. How much for machinery and tools to accom- pany trains, repair track, etc., used by track- men or others.....do...		
34. How much for all other property not enum'd.		
35. Total amount expended between Sept. 30, 1876, and Sept. 30, 1877.....do...		

This is taken as meaning new construction, of which there is none.

CHARACTERISTICS OF ROAD.

LENGTH OF ROAD.	MILES.		Weight of Rail per yard.
	Entire Length.	Length in Wis- consin.	
1. Length of main line of road from Sheboygan to Princeton.....	79	79	45 to 60
2. Length of double track on main line.....			
* BRANCHES — Name each.			
3. Length of branch.....			
From — to — length of double track on branch.....			
4. Length of branch.....			
From — to — length of double track on branch.....			
5. Length of branch.....			
From — to — length of double track on branch.....			
6. Length of branch.....			
From — to — length of double track on branch.....			
7. Total length of main line and branches ..	79	79	.....
8. Aggregate length of tracks operated by this company, computed as single track.			
9. Aggregate length of sidings and other track not above numerated. Four miles.			
10. Number of junction stations. Four: Ripon, Fond du Lac, Plymouth and Sheboygan.			
11. What is the gauge of your lines? 4 feet 8½ inches.			

DOINGS OF THE YEAR IN TRANSPORTATION.

CHARACTER OF SERVICE.	No. of persons employed.	Average salary per annum.
1. Superintendents	1	\$2,500
Clerks in all offices.....	11	644
Master and assistant mechanics.....	20	640
Conductors	3	800
Engineers and Firemen	10	775
Brakemen	6	525
Flagmen, switch-tenders, gate-keepers and watchmen.....	4	800
Station agents.....	14	600
Section men	36	480
Laborers.....	11	396
Other employees	4	800

* This includes leased lines — designate them as such — the earnings, expenses, etc., of which are given in this report.

Doings of the Year in Transportation — continued.

MILEAGE AND TONNAGE.	MILES.	
	Whole line.	In Wisconsin.
2. Number of miles run by passenger trains	54,684	.....
3. Number of miles run by freight and mixed trains	60,625	.....
4. Number of miles run by construction and other trains.....	415	.....
5. Total mileage	115,674	.....
6. Total number of passengers carried	42,712	.....
7. Total number of freight cars carried one mile ..	3,371,009	.....
8. Total number of freight cars carried one mile. ...	682,767	.....
9. Average distance traveled by each passenger.	15 $\frac{1}{10}$	.....
Miles per hour.		
10. The highest rate of speed allowed for express passenger and mail trains	25	.....
11. Schedule rates of same, including stops	18 $\frac{3}{4}$	.....
12. The highest rate of speed allowed for accommodation trains.....	15	.....
13. Schedule of same, including stops	11	.....
14. The highest rate of speed allowed for freight trains	15	.....
15. Schedule rate of same, including stops	11	.....
16. Amount of freight carried per car.....	10 tons.	.....
17. TOTAL FREIGHT IN TONS.		
Grain		8,966
Flour		1,851
Provisions.....		1,456
Salt, cement, water lime and stucco.....		1,114
Manufactures, including agricultural implements, furniture and wagons.....		1,851
Live stock		259
Lumber and forest products.....		11,431
Iron, lead, and mineral products.....		240
Stone, brick, lime, sand, etc.....		3,509
Coal.....		2,989
Merchandise and other articles.....		9,005
Total tons.....		42,671

EARNINGS DURING THE YEAR ENDING SEPTEMBER 30, 1877.

MONTHLY EARNINGS FROM ALL SOURCES.

MONTHS.	PASSENGERS.		FREIGHT.		MAILS, EXPR'S, AND ALL OTHER SOURCES.		TOTALS.	
	Whole Line.	Wisconsin.	Whole Line.	Wisconsin.	Whole Line.	Wisconsin.	Whole Line.	Wisconsin.
1876.								
October		\$3,251 93		\$8,967 54		\$545 93	\$12,765 39	
November		3,327 72		6,084 05		383 06	9,794 83	
December		2,556 38		3,440 70		1,079 43	7,076 51	
1877.								
January		1,860 54		4,260 70		895 34	7,016 58	
February		2,195 74		3,695 76		630 81	6,522 31	
March		2,327 05		4,728 08		593 20	7,648 33	
April		2,758 32		3,882 93		524 75	7,166 00	
May		2,206 01		4,324 28		721 00	7,251 29	
June		2,840 61		5,146 66		597 75	8,585 02	
July		3,620 38		5,619 16		468 10	9,707 64	
August		3,811 02		3,273 55		525 64	7,610 21	
September		3,315 00		6,218 16		572 76	10,100 92	
Totals		\$34,070 69		\$59,636 57		\$7,537 77	\$101,245 03	

1. Earnings per mile of road	\$1,281 ⁵⁴ / ₁₀₀
2. Earnings per mile of road on freight	754 ¹³ / ₁₀₀
3. Earnings per mile on passengers	431 ¹³ / ₁₀₀
4. Earnings per train-mile run, on freight	0.98
5. Earnings per train-mile run, on passengers	0.62 ¹ / ₂
6. O. the earnings of the entire line, what is the ratio of the passenger to the freight? As	34 to 60
7. Average gross earnings per mile [79 miles] of road, exclusive of sidings	\$1,281 58
8. Average net earnings per mile [79 miles] of road, exclusive of sidings	253 08
9. Average net earnings per train-mile	0.17 ¹ / ₂

EXPENSES DURING THE YEAR ENDING SEPTEMBER 30, 1877.

PAYMENTS FOR CURRENT AND OPERATING EXPENSES.

	Belonging to Whole Line.	Belonging to Wis- consin.
1. Maintenance of way —		
Repairs of track, including new and re-rolled iron rail in place of old iron rail.....		\$17,064 49
Repairs of bridges		870 26
Repairs of fences		406 84
New steel rail, valued only as iron rail*.....		
Other expenses on way		
2. Maintenance of buildings		928 11
3. Maintenance of rolling-stock —		
Locomotives		4,148 56
Passenger, baggage, mail and express cars.....		7,149 57
Freight cars		411 85
Shop tools and machinery		
4. Conducting transportation and general expenses —		
Management and general office		17,058 84
Foreign agency and advertising		1,211 23
Agents and station service		1,280 78
Conductors, baggage and brakemen.....		4,806 23
Engineers, firemen and wipers.....		5,689 58
Train and station supplies		1,185 76
Fuel consumed		9,788 42
Oil and waste		486 45
Personal expenses.....		
Damage to persons.....		316 19
Damage to property.....		297 86
Loss and damage to freight and baggage		207 20
Legal expenses.....		258 80
Other general operating expenses		2,508 52
5. Current expenses —		
For taxes and rents		2,994 88
For insurance.....		1,448 75
Lease of privilege of other roads whose earnings are included in this report, giving name and amounts paid		
6. Total current operating expenses, being nearly 80 per cent. of earnings.....		\$80,861 00
7. Average operating expenses per mile of road, exclusive of sidings	\$1,028 58	
8. Average operating expenses per train-mile		0.69 $\frac{1}{2}$
9. Excess of earnings over operating and current ex.....	20,388 49	
10. Cost of maintaining track and bridges per mile run		0.14 $\frac{1}{2}$
11. Cost of repairs of engines per mile run.....		0.08 $\frac{1}{2}$
12. Cost of engineers and firemen per mile run.....		0.04 $\frac{1}{2}$
13. Cost of oil and waste per mile run.....		0.04 $\frac{1}{2}$
14. Cost of fuel per mile run, 264 miles.....		0.08 $\frac{1}{2}$

* In substituting steel-rail for iron rail, the cost of iron rail only should be charged to operating account, and the excess carried to extraordinary expenses. (See next page.)

Expenses, etc.—continued.

PAYMENTS IN ADDITION TO OPERATING EXPENSES.*

	Belonging to Whole Line.	Belonging to Wisconsin.
15. New steel rails, excess of cost over iron rail, old track
16. New rail on new track
17. New equipment	817 24
18. New bridges and culverts (not including re- placements)
19. Real estate bought during the year
20. New tools and machinery	195 85
21. New buildings	1,258 69
22. Total paid for new investment on the length of the company's lines since date of last report...
23. Amounts paid in cash, stock, bonds, or other- wise, for extensions, new lines and branches, during the past year—specify particulars...
Total new investments	\$1,801 88
24. For interest on bonds etc.
25. Dividends—rate — per cent.—on preferred stock
26. Dividends—rate — per cent.—on common stock
Total payments in addition to operating ex- penses
28. What amount of money have you expended for building roads out of the state, from proceeds arising from business done on your roads in this state?
29. How was amount of dividends paid the past year—cash, stock or other wise? Specify amounts and manner of payment.

GENERAL BALANCE SHEET, 1st OF OCTOBER, 1877.

ASSETS.		LIABILITIES.	
DOLLARS.	Cts.	DOLLARS.	Cts.
Construction account.....	2,763,317 44	Capital stock.....	1,892,800 00
Equipment account.....	210,887 11	Subscription notes.....	2,100 00
Old organization.....	4,609 00	1st mortgage bonds..	1,600,000 00
Hypothecated bonds.....	105,775 60	Moses Taylor.....	47,155 45
Shueboygan elevator.....	16,686 20	Bills payable.....	5,642 23
Cash on hand ..	6,543 23	Elevator contract.....	5,266 20
Replacement account.....	8,086 82	Freight earnings.....	41,140 68
Bills receivable.....	1,166 02	Passenger earnings.....	24,934 67
U. S. P. O. Dep't.....	722 83	Mail earnings.....	3,009 60
Stock of material.....	6,665 50	Express earnings.....	330 21
Stock of fuel.....	4,169 87	Material sold.....	1,608 84
Station agents' balances.....	4,117 58	Miscellaneous earnings.....	1,027 50
Sundry accounts due Co.....	9,087 13	Unpaid vouchers.....	13,947 81
Extraordinary expenses.....	11,580 02	Income account.....	49,105 90
General operating expenses.....	54,626 22	Sundry accounts company owe.....	19,810 96
	\$3,207,940 05		\$3,207,940 05

1. What regulations govern your employees in regard to crossings of other railroads, and are they found to be sufficient?
Statute.
2. What regulations govern your employees in regard to crossings of public highways? And are these regulations found to be sufficient?
Blow whistle one short blast 80 rods from crossing, and ring bell until crossing is passed. This is sufficient.
3. What platform and coupler between passenger cars do you use?
Ordinary and link and pin coupler.
4. What kind of brakes do you use on passenger trains?
Ordinary hand brakes and steam brakes.

U. S. MAIL.

5. What is the compensation paid you by the U. S. government for the transportation of its mails, and on what terms of service?
\$4,012 50 per annum.

EXPRESS COMPANIES.

6. What express companies run on your road, and on what terms, and what conditions as to rates, use of track, machinery, repairs of cars, etc.; what kind of business is done by them, and do you take their freights at the depot, or at the office of such express companies?
American Express Co. at so much per 100 lbs. of freight taken at depot.

TRANSPORTATION COMPANIES.

7. What freight and transportation companies run on your road, and on what terms, and on what conditions as to rates, use of track, machinery, repairs of cars, etc.? Do they use the cars of your company, or those furnished by themselves, and are their cars or their freight given any preference in speed or order of transportation, and if so, in what particular?
No such companies on the line.

SLEEPING CARS.

8. Do sleeping or dining cars run on your road, and if so, on what terms are they run, by whom are they owned, and what charges are made in addition to the regular passenger rates?
No.

ADDITIONAL QUESTIONS.

9. Have you acquired any additional chartered rights or privileges under the special or general laws of this state, directly or indirectly, since your last report?
No.
10. Have you acquired any such additional rights or privileges under the laws, general or special, of any other state, since your last report?
No.
11. Have you acquired any lines in or out of this state, by purchase, lease, consolidation, or otherwise, since your last report? If yes, give full particulars relating thereto, including length of line, location thereof, at what point or place connection is made with old line; terms of purchase or lease, and brief statement of reasons for making such purchase or lease, and whether made by consent of stockholders?
No.

12. Do you, by purchase or ownership of capital stock, or in any other manner, control any other railroad corporation owning or having under its control a parallel or competing line?
No.
18. Does any officer of your company act as the officer of any other railroad corporation, owning or having the control of a parallel or competing line?
No.
14. What running arrangements have you with other railroad companies, setting forth the contracts for the same, made since the date of your last report?
No arrangements except the ordinary business with connecting lines.
15. Have you such arrangements with other railroad companies crossing or connecting with your lines, as enable passengers to make close connections with trains on such lines, at all such crossing or connecting points? If so, when were such arrangements made? If not at all such points, state at what points such connections are not made, and the reasons therefor.
Yes. Close connections are made at Ripon and Fond du Lac. Convenient connections at Sheboygan, and secondary connections at Plymouth. Trains on Wis. Cen. R'y run on such time we cannot make close connections with passenger trains at Plymouth.
16. Have any swamp or other state lands been granted your company since the date of your last report? If so, how many acres?
No.
17. Have any United States lands been granted to your company, directly or indirectly, since the date of your last report? What number acres received by your company, directly or indirectly, since date of last report?
No.
18. What number acres sold and conveyed since date of your last report?
No.
19. Average price per acre realized?
20. To what corporations have you sold land? How much, and what price, since the date of your last report?
No.
21. Number of acres now held by company?
22. Average price asked for lands now held by company?
23. Value of donations of right of way or other real estate received since the date of your last report?
24. Amount of city, county and town aid granted to company in exchange for stock, or otherwise? Specify particulars since date of last report.
25. Total cash amount realized from such aid since date of your last report?
26. Amount of land sold, but not conveyed, under contracts now in force?
27. The whole amount of cash, principal and interest, received for lands hitherto sold and conveyed, since date of last report?
28. Whole amount of cash received, principal and interest, on outstanding contracts in force, since date of last report?
29. Whole amount of cash received, principal and interest, on contracts forfeited, since date of last report?
30. Whole amount of cash received for stumpage, trespasses, etc., since date of last report?
31. What have been your total receipts from lands sold, and contracted to be sold, since the date of last report?
32. What is the aggregate sum of receipts on account of lands, from all sources whatever, up to present time?
33. What is the amount now due the Company on lands sold, or contracted to be sold?
34. Are there any terminal points or places, on your lines in, or out, of this state, to and from which the larger portion of the freight transported on your line is carried? If so, name them.
Princeton & Sheboygan.

35. Have you made any advance in the rates of freight, from stations on your lines, to such terminal points since the enactment of chapter 57 of laws of 1876?

No.

36. Have you made any reductions in such rates, from any stations, since the passage of said chapter?

If you answer either of the questions in the affirmative, annex to your reply schedules, naming the stations, with distance and rates in force at the time, and since the passage of said chapter, on 1st, 2d, 3d and 4th class of freight, and upon flour, grain, live stock, agricultural implements, salt, and coal.

No.

37. *Have you made such advance or reduction on your rates of freight between other stations on your line? If yes, annex a schedule to your reply, showing what the advance or reduction has been on the articles above named.

No.

38. What is your present tariff per mile for passengers, both through and local?

Through, .02½ to .03½. Local, .04c.

39. What proportion of the passengers carried by you, in this State, purchase round trip tickets? And what proportion purchase 500-mile tickets? Round trip tickets not called for, and very few purchase 500 mile tickets.

40. Have you made any advance in the rates of freight for lumber, since the passage of chapter 57, of the laws of 1876? If so, annex to your reply a schedule, naming the stations and rates in force both at the time and since the passage of said chapter.

No.

41. Has your Company any rule governing your conductors, engineers, and trainmen concerning the use of intoxicating liquors? *If so, what is it, and is it enforced?*

No.

* The "distance tariff," with both rates noted thereon, will be a sufficient answer.

ACCIDENTS.

No. of Accidents.	STATEMENT OF EACH ACCIDENT.	PASSENGERS.				EMPLOYEES.				OTHERS.				Damages Claimed.	Damages Paid.
		Killed.	Injured.	Killed.	Injured.	From causes beyond their control.	By their own misconduct or want of caution.	Killed.	Injured.	From causes beyond their control.	By their own misconduct or want of caution.	Killed.	Injured.		
1	Levi Cowans, Oct. 10, 1876, Plymouth .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
2	Archibald McDonald, Nov. 26, 1876, near Woodhull .....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Total .....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

1. Of the above accidents, those numbered as follows were caused by broken rails.
Total No....
2. Of the above accidents those numbered as follows were caused by inattention of employees:
Total No. 1.
3. Of the above accidents those numbered as follows were caused by collisions not properly coming under 2:
Total No.....
4. Of the above accidents those numbered as follows were caused by explosions:
Total No.....
5. Amount paid as damages caused by fire from locomotives, \$250.

NUMBER AND KIND OF FARM-ANIMALS KILLED, AND AMOUNT OF DAMAGES PAID THEREFOR.

	Number Killed.	Amount Paid.
1. Cattle	2	\$40 00
2. Horses	2	47 50
3. Mules		
4. Sheep	6	11 50
5. Hogs.....		
6. Total	8	99 00

7. Amount claimed yet unsettled, or in litigation.

REMARKS.

STATE OF WISCONSIN, }
County of Fond du Lac, } ss.

I, Geo. P. Lee, superintendent of the Sheboygan and Fond du Lac Railroad Company, being duly sworn, depose and say, that I have caused the foregoing statements to be prepared by the proper officers and agents of this company, and having carefully examined the same, declare them to be a true, full and correct statement of the condition and affairs of said company, on the first day of October, A. D. 1877, to the best of my knowledge and belief.

[SEAL.]

Signed.

GEO. P. LEE.

Subscribed and sworn to before me, this 20th day of December, A. D. 1877.

[SEAL.]

J. B. PERRY,
Notary Public, Wis.

REPORT
OF THE
WESTERN UNION RAILROAD COMPANY

For the year ending 30th September, 1877.

OFFICERS AND OFFICES OF THE COMPANY OPERATING.

NAMES.	OFFICES.	ADDRESS.	SAL'RIES
Alex. Mitchell.....	President.....	Milwaukee, Wis.....	
S. S. Merrill.....	1st Vice President.....	do.....	
F. G. Ranney.....	Secretary and Treasurer.....	do.....	
Fuller & Winslow.....	Solicitors.....	Racine, Wis.....	
.....	Treasurer.....	.....
.....	General Manager.....	.....
D. A. Olin.....	General Superintendent.....	Racine, Wis.....	
.....	Chief Engineer.....	.....
Fred. Wild.....	General Ticket Agent.....	Racine, Wis.....	
do.....	General Freight Agent.....	.....
P. Tyrrell.....	Auditor.....	Racine, Wis.....	
Total Salaries.....	.....	.....

1. General offices at Racine, Wis.

NAMES OF DIRECTORS.	RESIDENCE.
Alex. Mitchell.....	Milwaukee, Wis.
S. S. Merrill.....	Milwaukee, Wis.
John W. Cary.....	Milwaukee, Wis.
Hans Crocker.....	Milwaukee, Wis.
J. L. Mitchell.....	Milwaukee, Wis.
John Johnson.....	Milwaukee, Wis.
John Plankinton.....	Milwaukee, Wis.
W. S. Gurnee.....	New York.
H. T. Fuller.....	Racine, Wis.
D. W. Dame.....	Lanark, Ill.
E. P. Barton.....	Freeport, Ill.

EXECUTIVE COMMITTEE.

None.

2. Date of annual election of directors. Second Wednesday in October.
3. Name and address of person to whom correspondence, concerning this report, should be directed,
P. Tyrrell, Racine.

CAPITAL STOCK.

1. Capital stock authorized by purchase..... \$4,000,000 00
2. How many kinds of stock? One.
3. Amount of common stock..... 4,000,000 00
4. Amount of preferred stock.
None.
5. Total capital stock \$4,000,000 00
6. Proportion of stock for Wisconsin*..... \$1,601,881 00
7. Rate of preference.
8. How much *common* stock has been issued since June 30th, 1876?
None.
9. For what purpose? and what was received therefor?
10. How much *preferred* stock has been issued since June 30th, 1876?
None.
11. For what purpose? and what was received therefor?

FUNDED AND UNFUNDED DEBT.

	Total.	Wisconsin Lines.
1. Describe severally all outstanding classes of bonds, including amounts, dates of issue, interest, where and when payable.....	\$3,500,000 00	\$1,401,645
First mortgage, due February 1, 1896; interest 7 per cent., payable in New York semi-annually. Feb. 1st and Aug. 1st....	884,879 00	134,109
2. Amount of debt not secured by mortgage?.....		
3. Total funded and unfunded debt.....	\$3,884,879 00	\$1,535,754
4. Net cash realized from bonded debt, above described		
5. Proportion of debt, bonded and floating, for Wisconsin		\$1,535,754

* Unless some good reason exists to the contrary, this proportion—and all other estimates of the same character—should be for the miles of road in this state compared with the whole. If made on a different basis please state the reasons therefor.

COST OF ROAD AND EQUIPMENT.

	Total.	Wisconsin Lines.
1. What amount has been expended for right of way, between Sept. 30, 1876, and Sept. 30, 1877.....	Nothing.	.....
2. What for real estate, and for what purpose purchased?.....	Nothing.	.....
3. What has been expended in construction between Sept. 30, 1876 and Sept. 30, 1877.....	Nothing.	.....
4. What for improvement?.....	Nothing.	.....
5. What for other items of expense, for construction and equipment (equipment).....	\$8,000	\$3,204
6. What amounts, if any, have been paid for roads or portions of roads not built by company during the time mentioned.....	.....	.....
7. Total expended between Sept. 30, 1876, and Sept. 30, 1877.....	\$8,000	\$3,204
8. Total cost of entire line, as per last report....	\$8,086,068	\$3,318,204
9. Total cost of entire line to date.. ..	\$8,044,068	\$3,221,408

**ORIGINAL COST AND PRESENT ESTIMATED VALUE OF TOTAL
PROPERTY IN THIS STATE.**

DESCRIPTION OF PROPERTY.	Total.	In Wisconsin.
1. What amount has been expended for grading between Sept. 30, 1876, and Sept. 30, 1877....	
2. How much for bridges.....	
3. How much for tunnels.....	
4. How much for iron bridges.....	
5. How much for wooden bridges.....	
6. How much for ties and tying.....	
7. How much for iron rail, No. miles, lbs. wt. per yard, 30.....	
8. How much for steel rail, No. miles, — lbs. wt. per yard.....	
9. How much for chains, spikes, fish-bar, etc., estimate.....	
10. How much for laying track.....	
11. How much for passenger and freight stations, fixtures and furniture, as per schedule; No. stations.....	
12. How much for engine and car shops, No. —.....	
13. How much for machine shops, No. —.....	
14. How much for machinery and fixtures.....	
15. How much for engine houses, No. —.....	
16. How much for car sheds, No. —.....	
17. How much for turn tables, No. —.....	
18. How much for track and other scales, No. —.....	
19. How much for wood sheds and water stations, estimate No. —.....	
20. How much for fencing, — No. miles, —.....	
21. How much for elevators, No. —.....	
22. How much for locomotives and tenders, No. —. Av. wt. tons. —.....	
23. How much for snow plows, as per schedule, No. —. Av. wt. tons, —.....	
24. How much for wreckers, No. —. Av. wt. tons, —.....	
25. How much for passenger cars, 1st class, No. —. Av. wt. tons, —.....	
26. How much for passenger cars, 2d class, No. —. Av. wt. tons, —.....	
27. How much for baggage cars, No. —. Av. wt. tons, —.....	
28. How much for mail cars, No. —. Av. wt. tons, —.....	
29. How much for express cars, No. —. Av. wt. tons, —.....	
30. How much for freight cars, closed, No. —. Av. wt. tons, —.....	
31. How much for platform cars, No. —. Av. wt. tons, —.....	
32. How much for hand cars, No. —. Av. wt. tons, —.....	
33. How much for machinery and tools to accompany trains, repair track, etc., used by trackmen or others.....	
34. How much for all other property not enumerated.....	
35. Total amount expended between Sept. 30, 1876, and Sept. 30, 1877.....	

CHARACTERISTICS OF THE ROAD.

LENGTH OF ROAD.	MILES.		Weight of Rail per yard.
	Entire Length.	Length in Wis- consin.	
1. Length of main line of road from Racine, Wis., to Rock Island June, Ill.....	192.00	68.70	56
2. Length of double track on main line.....			
* BRANCHES — Name each.			
3. Length of branch.....	16.50	16.50	
From Elkhorn to Eagle Wisconsin, Length of double track on branch			
4. Length of branch.....	4.25		
From Watertown to Hampton Coal Mines, Ill., Length of double track on branch			
5. Length of branch			
From — to —. Length of double track on branch.....			
6. Length of branch.....			
From — to —. Length of double track on branch			
7. Total length of main line and branches.....	212.75	85.20	
8. Aggregate length of tracks operated by this company <i>computed as single track</i> , 212.75 miles.			
9. Aggregate length of sidings and other track not above enumerated, 26.18 miles.			
10. Number of junction stations, 9.			
11. What is the gauge of your line? 4 feet, 8 $\frac{1}{4}$ inches.			

DOINGS OF THE YEAR IN TRANSPORTATION.

CHARACTER OF SERVICE.	No. of persons employed.	Average salary per annum.
1. Division and assistant superintendents	1	\$1,380 00
Clerks in all offices.....	42	636 73
Master and assistant mechanics.....	4	1,395 00
Conductors	25	871 28
Engineers	29	1,075 55
Brakemen	52	552 42
Flagmen, switch-tenders, gate-keepers and watchmen.....	16	476 02
Station agents.....	46	667 02
Section men	187	858 90
Laborers.....	67	395 29
Other employees	179	684 12
Total	648	\$369,718 61

* This includes leased lines — designate them as such — the earnings, expenses, etc., of which are given in this report.

Doings of the Year in Transportation — continued.

MILEAGE AND TONNAGE.	MILES.	
	Whole line.	In Wisconsin.
2. Number of miles run by passenger trains	289,586	119,040
3. Number of miles run by freight and mixed trains	523,163	221,488
4. Number of miles run by construction and other trains.....	812,749 18,130	840,528 4,560
5. Total mileage	880,879	845,088
6. Total number of passengers carried	224,166	96,706
7. Total number tons freight carried one mile ..	43,522,130	22,005,156
8. Total number passengers carried one mile. ...	6,082,293	2,864,964
9. Average distance traveled by each passenger.	27.13	24.46
Miles per hour.		
10. The highest rate of speed allowed for express passenger and mail trains	25	
11. Schedule rates of same, including stops	20	
12. The highest rate of speed allowed for mail and accommodation trains.....		
13. Schedule of same, including stops		
14. The highest rate of speed allowed for freight trains	15	
15. Schedule rate of same, including stops	10	
16. Amount of freight carried per car.....		
17. TOTAL FREIGHT IN TONS.	Whole line.	In Wisconsin.
Grain	126,271	124,905
Flour	2,896	2,505
Provisions.....	8,823	4,088
Salt, cement, water lime and stucco.....	8,988	8,566
Manufactures, including agricultural implements, furniture and wagons.....	12,202	10,458
Live stock	21,738	8,617
Lumber and forest products.....	81,549	80,126
Iron, lead, and mineral products.....	2,540	2,540
Stone, brick, lime, sand, etc.....	9,561	2,387
Coal.....	107,874	80,192
Merchandise and other articles.....	58,002	48,589
Total tons.....	435,444	317,973

EARNINGS DURING THE YEAR ENDING SEPTEMBER 30, 1877.
MONTHLY EARNINGS FROM ALL SOURCES.

MONTHS.	PASSENGERS.		FREIGHT.		MAILS, EXPRESS, AND ALL OTHER SOURCES.		TOTALS.	
	Whole line.	Wisconsin.	Whole line.	Wisconsin.	Whole line.	Wisconsin.	Whole line.	Wisconsin.
1876								
October	\$19,681 19	\$7,481 93	\$93,403 24	\$50,388 62	\$4,061 94	\$1,136 57	\$117,146 87	\$59,007 12
November	17,867 85	6,072 64	71,705 43	30,770 97	8,514 21	1,047 55	92,587 49	43,591 16
December	15,596 45	5,480 63	60,723 70	29,407 45	8,160 47	819 82	79,480 62	35,707 90
1877								
January	13,554 89	4,807 04	50,590 83	23,158 60	3,479 36	994 96	67,625 08	28,960 60
February	14,437 85	5,238 01	40,698 72	18,669 38	3,492 58	1,032 56	58,629 15	24,939 95
March	16,441 10	5,834 00	49,339 93	22,844 00	3,263 04	1,003 28	69,044 07	29,681 28
April	16,605 11	6,279 79	45,464 83	19,345 64	3,132 27	1,013 32	65,262 21	26,638 75
May	15,561 06	5,693 72	56,901 40	28,552 21	3,568 76	1,063 79	76,031 22	35,309 72
June	17,539 31	6,730 73	48,300 93	25,603 11	3,401 11	1,047 36	69,241 35	33,381 20
July	19,737 27	8,059 72	58,000 53	31,293 32	3,455 32	1,091 42	81,193 62	40,444 46
August	18,887 30	7,331 90	81,558 30	44,231 56	3,887 96	1,104 62	104,333 56	52,668 08
September	27,098 27	8,705 66	105,581 76	62,424 55	4,017 05	1,074 94	136,697 08	72,205 15
Totals	\$212,507 65	\$77,715 77	\$762,269 60	\$392,089 41	\$42,434 57	\$12,480 19	\$1,017,211 32	482,835 87

1. Earnings per mile of road	\$4,781 25
2. Earnings per mile of road on freight	3,582 94
3. Earnings per mile of road on passengers.	998 86
4. Earnings per train-mile run, on freight	1 46
5. Earnings per train-mile run, on passengers.	73
6. Of the earnings of the entire line, what is the ratio of the passenger to the freight? As.	1 to 3.10
7. Average gross earnings per mile [212.75 miles] of road, exclusive of sidings.	4,781 25
8. Average net earnings per mile [212.75 miles] of road, exclusive of sidings	1,548 37
9. Average net earnings per train-mile	<u>.40 10</u>

15—R. R.

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EXPENSES DURING THE YEAR ENDING SEPTEMBER 30, 1877.

PAYMENTS FOR CURRENT AND OPERATING EXPENSES.	Belonging to whole line	Belonging to Wis.
1. Maintenance of way:		
Repairs of track, including new and re-rolled iron rail in place of old iron rail.....	\$142,520 51	\$58,009 14
Repairs of bridges.....	17,309 22	5,029 92
Repairs of fences.....	8,530 76	1,284 04
New steel rail, vauded only as iron rail.* (No steel rail).....		
Other expenses on way.....		
2. Maintenance of buildings.....	14,976 18	7,108 76
Maintenance of rolling stock:		
Locomotives.....	51,814 96	20,525 98
Passenger, baggage, mail and express cars.....	15,645 26	6,258 10
Freight cars.....	47,805 91	19,122 86
Shop tools and machinery.....	3,766 18	1,506 47
4. Conducting transportation, and gen'l expenses:		
Management and general office.....	25,541 24	10,216 50
Foreign agency and advertising.....	2,676 47	1,070 59
Agents and station service.....	62,586 54	25,970 95
Conductors, bag. and brakemen.....	52,045 88	20,818 15
Engineers, firemen and wipers.....	59,164 65	23,665 86
Train and station supplies.....	14,427 26	5,770 90
Fuel consumed.....	60,837 12	24,364 85
Oil and waste.....	10,078 08	4,031 23
Personal expenses (included in other items).....		
Damage to persons.....	632 02	94 50
Damage to property.....	606 50	192 50
Loss and damage to fr't and bag.....	2,016 85	806 74
Miscellaneous expenses.....	2,911 25	1,164 50
Legal expenses.....	4,024 79	1,609 92
Savannah transfer.....	13,086 50	
Car service.....	11,996 96	4,796 78
5. Current expenses:		
For taxes.....	27,447 12	17,694 00
For insurance.....	8,022 95	1,209 18
Lease or privilege of other roads whose earnings are included in this report, giving name and amounts paid:		
Chi. R. I. & P. R. R.	\$15,000 00	
Chi., Mil. & St. P. R'y.....	22,825 20	
	37,825 20	22,825 20
6. Total current operating expenses, being 67.6 per cent. of earnings.....	\$687,795 81	\$285,149 12
7. Average operating expenses per mile of road, exclusive of sidings.....	\$3,232 88	\$3,346 82
8. Average operating expenses per train mile....	85	84
9. Excess of earnings over operating and current expenses.....	329,416 01	197,686 25
10. Cost of maintaining track and bridges per mile run.....	19.67	18.51
11. Cost of repairs of engines per mile run.....	6.31	6.03
12. Cost of engineers, firemen and wipers per mile run.....	7.28	6.95
13. Cost of oil and waste per mile run....	1.24	1.18
14. Cost of fuel per mile run.....	7.49	7.16

*In substituting steel rail for iron rail, the cost of iron rail only should be charged to operating account, and the excess carried to extraordinary expenses. (See next page.)

Expenses, etc. — continued.

PAYMENTS IN ADDITION TO OPERATING EXPENSES.

	Belonging to whole line.	Belonging to Wisconsin.
15. New steel rail, excess of cost over iron rail, old track. No steel rail		
16. New rail on new track. None		
17. New equipment	\$8,000 00	\$8,204 00
18. New bridges and culverts (not including replacements)		
19. Real estate bought during the year		
20. New tools and machinery		
21. New buildings		
22. Total paid for new investment on the length of the company's line since date of last report		
23. Amounts paid in cash, stock, bonds, or otherwise, for extensions, new lines and branches, during the past year — specify particularly		
23½. Interest and exchange	\$5,518 50	\$2,207 40
23¼. Guaranty to Racine elevator	19,081 05	19,081 05
24. For interest on bonds	\$245,805 00	\$98,822 00
25. Dividends—rate — per cent. — on preferred stock. No dividend		
26. Dividends—rate — per cent. on common stock. No dividend		
27. Total payments in addition to operating expenses	\$278,404 55	\$122,814 45
28. What amount of money have you expended for building roads out of the state, from proceeds arising from business done on your roads in this state? None		
29. How was amount of dividends paid the past year — cash, stock or other- wise? Specify amounts and manner of payment. No dividends.		

GENERAL BALANCE SHEET, 1st OF OCTOBER, 1877.

ASSETS.	AMOUNT.	LIABILITIES.	AMOUNT.
Cost of road	\$7,000,000 00	First mortgage bonds	\$8,500,000 00
Construction and equipment	1,044,068 96	Common stock	4,000,000 00
Materials and fuel on hand	48,695 78	Due railroad and other companies	203,192 86
Due fr. m railroad and other companies	14,624 03	Bills payable ..	20,380 59
U. S. Gov't P. O. department	3,412 25	Unpaid vouchers and pay rolls	109,316 35
Station agents	6,281 00	Balance to income account	282,202 23
Total	\$8,117,082 02	Total	\$8,117,082 02

1. What regulations govern your employees in regard to crossings of other railroads, and are they found to be sufficient?
All trains come to a full stop before crossing other railroads, and four hundred feet from the same, this regulation is found sufficient.
2. What regulations govern your employees in regard to crossings of public highways? And are these regulations found to be sufficient?
Our time table rules require the engine bell be rung and whistle sounded before crossing public highways and we find them sufficient for the purpose.
3. What platform and coupler between passenger cars do you use?
The Miller platform and coupler.
4. What kind of brakes do you use on passenger trains?
Hand brakes.

U. S. MAIL.

5. What is the compensation paid you by the U. S. government for the transportation of its mails, and on what terms of service?
\$18,636.80 per annum for two trains each way daily.

EXPRESS COMPANIES.

6. What express companies run on your road, and on what terms, and what conditions as to rates, use of track, machinery, repairs of cars, etc.; what kind of business is done by them, and do you take their freights at the depot, or at the office of such express companies?
American Merchants' Union Express Company. Terms \$1,000 per month one trip each way daily. Allowed to carry three tons each way on passenger trains; all excess over three tons to be paid for at double first-class rates; freight received at our depots.

TRANSPORTATION COMPANIES.

7. What freight and transportation companies run on your road and on what terms, and on what conditions as to rates, use of track, machinery, repairs of cars, etc.? Do they use the cars of your company, or those furnished by themselves, and are their cars or their freight given any preference in speed or order of transportation, and if so, in what particular?
None.

SLEEPING CARS.

8. Do sleeping or dining cars run on your road, and if so, on what terms are they run, by whom are they owned, and what charges are made in addition to the regular passenger rates?
Sleeping cars belong to the company, fare \$1.50 and \$1.00 according to distance. No dining cars.

ADDITIONAL QUESTIONS.

9. Have you acquired any additional chartered rights or privileges under the special or general laws of this state, directly or indirectly, since your last report?
None.

10. Have you acquired any such additional rights or privileges under the laws, general or special, of any other state, since your last report?
None.
11. Have you acquired any lines in or out of this State, by purchase, lease, consolidation or otherwise, since your last report? If ye, give full particulars relating thereto, including length of line, location thereof, at what point or place connection is made with old line; terms of purchase or lease, and brief statement of reasons for making such purchase or lease, and whether made by consent of stockholders?
None.
12. Do you, by purchase or ownership of capital stock, or in any other manner, control any other railroad corporation owning or having under its control a parallel or competing line?
None.
13. Does any officer of your company act as the officer of any other railroad corporation, owning or having the control of a parallel or competing line?
No.
14. What running arrangements have you with other railroad companies, setting forth the contracts for the same, made since the date of your last report?
None.
15. Have you such arrangements with other railroad companies crossing or connecting with your lines, as enable passengers to make close connections with trains on such lines, at all such crossing or connecting points? If so, when were such arrangements made? If not at all such points, state at what points such connections are not made, and the reasons therefor?
We make connections at all junctions with other roads, as close as time table arrangements will permit. All connections are liable to be affected by change of time.
16. Have any swamp or other State lands been granted your Company since the date of your last report? If so, how many acres?
No lands.
17. Have any United States lands been granted to your Company, directly or indirectly, since the date of your last report? What number acres received by your Company, directly or indirectly, since date of last report?
18. What number acres sold and conveyed since date of your last report?
19. Average price, per acre, realized?
20. To what corporations have you sold land? How much, and what price, since the date of your last report?
21. Number of acres now held by Company?
22. Average price asked for lands now held by Company?
23. Value of donations of right of way or other real estate received since the date of your last report?
24. Amount of city, county and town aid granted to Company in exchange for stock, or otherwise? Specify particulars since date of last report?
25. Total cash amount realized from such aid since date of your last report?
26. Amount of land sold, but not conveyed, under contracts now in force?
27. The whole amount of cash, principal and interest, received for lands hitherto sold and conveyed, since date of last report?
28. Whole amount of cash received, principal and interest, on outstanding contracts, in force since date of last report?
29. Whole amount of cash received, principal and interest, on contracts forfeited, since date of last report?
30. Whole amount of cash received for stumpage, trespasses, etc., since date of last report?
31. What have been your total receipts from lands sold, and contracted to be sold, since the date of last report?
32. What is the aggregate sum of receipts on account of lands, from all sources whatever, up to the present time?

33. What is the amount now due the Company on lands sold, or contracted to be sold?
34. Are there any terminal points or places, on your line, in or out of this State, to and from which the larger portion of the freight transported on your lines is carried? If so, name them.
Milwaukee, Wis; Racine, Wis.; Rock Island, Ill,
35. Have you made any advance in the rates of freight, from stations on your lines, to such terminal points, since the enactment of chapter 57 of the laws of 1876?
No.
36. Have you made any reductions in such rates, from any stations, since the passage of said chapter?
If you answer either of the questions in the affirmative, annex to your reply schedules, naming the stations, with distance and rates in force at the time, and since the passage of said chapter, on 1st, 2d, 3d and 4th class of freight, and upon flour, grain, live stock, agricultural implements, salt and coal.
See tariffs on file in the office of the R. R. Commissioner.
37. * Have you made such advance or reduction on your rates of freight between other stations on your line? If yes, annex a schedule to your reply, showing what the advance or reduction has been on the articles above named.
See tariffs on file in the office of the R. R. Commissioner.
38. What is your present tariff per mile for passengers, both through and local?
Local and through, 4 cents. Round trip, 8 cents.
39. What proportion of the passengers carried by you, in this state, purchase round-trip tickets? And what proportion purchase 500 mile tickets?
About one-fourth purchase round trip, and one in every four hundred purchase 500 mile tickets.
40. Have you made any advance in the rates of freight for lumber, since the passage of chapter 57 of the laws of 1876? If so, annex to your reply a schedule, naming the stations and rates in force, both at the time and since the passage of said chapter.
See tariffs.
41. Has your Company any rule governing your conductors, engineers and trainmen concerning the use of intoxicating liquors? *If so, what is it, and is it enforced?*
Our rules provide for the discharge of any employe using intoxicating liquors to excess.

*The "distance tariff," with both rates noted thereon, will be a sufficient answer.

ACCIDENTS.

Number of accidents.	STATEMENT OF EACH ACCIDENT.	PASSENGERS.				EMPLOYEES.				OTHERS.				Damages claimed.	Damages paid.
		Killed.	From causes beyond their control.	Killed.	By their own mis-conduct or want of caution.	Killed.	From causes beyond their control.	Killed.	By their own mis-conduct or want of caution.	Killed.	From causes beyond their control.	Killed.	By their own mis-conduct or want of caution.		
1	James Ryan, Oct. 18, 1876, Shirland.														
2	C. H. Church, Oct. 18, 1876, Cordova.														
3	J. Casford, Oct. 24, 1876, W. Union Junc.														
4	Jno. Protector, Nov. 2, 1876, Mt. Carroll.														
5	Henry Schmelzer, Nov. 3, 1876, Union Grove.														
6	Jno. Rausch, Nov. 11, 1876, Durand.														
7	Francis Gee, Nov. 21, 1876, Freeport.														
8	Chas. A. Paul, Dec. 15, 1876, Kinnickinic.														
9	H. C. Williams, Jan. 2, 1877, Freeport.														
10	Daniel Donahoe, May 11, 1877, Freeport.														
11	Patrick Grace, May 14, 1877, Thomson.														
12	Michael McMahon, May 24, 1877, Elkhorn.														
13	Alex Rice, Aug. 5, 1877, Freeport.														
14	William Jones, Sept. 24, 1877, Freeport.														
	Total	1	1			1				6				8	3

Give name of person, date and place of accident.

1. Of the above accidents, those numbered as follows were caused by broken rails.
Total No. None.
2. Of the above accidents those numbered as follows were caused by inattention of employees:
Total No.
3. Of the above accidents those numbered as follows were caused by collisions not properly coming under 2:
Total No. None.
4. Of the above accidents those numbered as follows were caused by explosions:
Total No. None.
5. Amount paid as damages caused by fire from locomotives.
\$272.00.

NUMBER AND KIND OF FARM-ANIMALS KILLED, AND AMOUNT OF DAMAGES PAID THEREFOR.

	Number Killed.	Amount Paid.
1. Cattle.....	9	\$188 00
2. Horses	1	60 00
3. Mules.....	.....	.....
4. Sheep.....	9	27 50
5. Hogs.....	12	64 00
6. Total	31	\$384 50

7. Amount claimed yet unsettled, or in litigation..
\$1,162.50.

STATE OF WISCONSIN, *County of Racine* — ss.

D. A. Olin, General Superintendent, and P. Tyrrell, Auditor, of the Western Union Railroad Company, being duly sworn, depose and say that they have caused the foregoing statements to be prepared by the proper officers and agents of this company, and having carefully examined the same, declare them to be a true, full and correct statement of the condition and affairs of said company, on the first day of October, A. D. 1877, to the best of their knowledge and belief.

Signed.

[SEAL.]

Attest, F. G. RAMSEY,
Secretary.

D. A. OLIN,
Superintendent.
P. TYRRELL,
Auditor.

Subscribed and sworn to before me, a notary public, this nineteenth day of November, A. D. 1877.

[SEAL.]

JNO. B. WINSLOW,
Notary Public, Wis.

REPORT
OF THE
WEST WISCONSIN RAILWAY COMPANY,
AND WM. H. FERRY, RECEIVER.

For the year ending 30th September, 1877.

OFFICERS AND OFFICES OF THE COMPANY OPERATING.

NAMES.	OFFICES.	ADDRESS.	SALARIES.
Wm. H. Ferry	Receiv'r from June 1, '77	Chicago, Ill....	.....
H. H. Porter.....	President.....	Chicago, Ill....	.....
J. H. Howe.....	1st Vice-President	Kenosha, Wis....	.....
H. H. Weakley	Secretary and L'nd Com	Hudson, Wis....	.....
Jno. C. Spooner	Solicitor	Hudson, Wis....	.....
R. P. Flower	Treasurer.....	New York City .....	.....
Wm. H. Ferry.....	General Manager	Chicago, Ill....	.....
E. W. Winter.....	General Superintendent	Hudson, Wis....	.....
F. B. Clarke.....	General Freight and Passenger Agent.....	St. Paul, Minn....	.....
C. D. W. Young.....	Auditor	Hudson, Wis....	.....
Total salaries.....	.....	.....	.....

1. General offices at Hudson, Wis.

NAMES OF DIRECTORS.	RESIDENCE.
J. H. Howe.....	Kenosha, Wis.
P. Sawyer.....	Oshkosh, Wis.
W. H. Ferry.....	Chicago, Ill.
H. Seibert.....	New York.
R. P. Flower.....	New York.
David Dows.....	New York.
G. Coplin.....	New York.
Thos Dreier.....	New York.
Horace Thompson.....	St. Paul, Minn.
N. W. Kitson.....	St. Paul, Minn.
John Comstock.....	Hudson, Wis.
E. W. Winter.....	Hudson, Wis.
Jno. C. Spooner.....	Hudson, Wis.
M. Hughitt.....	Chicago, Ill.
H. H. Porter.....	Chicago, Ill.

EXECUTIVE COMMITTEE.

H. H. Porter.
R. P. Flower.

J. H. Howe.

David Dows.
W. H. Ferry.

2. Date of annual election of directors.
First Wednesday in September
3. Name and address of person to whom correspondence, concerning this report, should be directed.
C. D. W. Young, Auditor, Hudson, Wis.

CAPITAL STOCK.

1. Capital stock authorized by charter.
2. How many kinds of stock?
The road passed into the hands of Wm. H. Ferry, receiver of the U. S. circuit court for the western district of Wisconsin, June 1, 1877.
3. Amount of common stock
[He is not prepared to make report of stock, bonds and floating debt of the railway.]
4. Amount of preferred stock.....
5. Total capital stock
6. *Proportion of stock for Wisconsin.....
7. Rate of preference.
8. How much *common* stock has been issued during the year ending September 30, 1877?
9. For what purpose? and what was received therefor?
10. How much *preferred* stock has been issued during the year ending September 30, 1876?
11. For what purpose? and what was received therefor?

* Unless some good reason exists to the contrary, this proportion—and all other estimates of the same character—should be for the miles of road in this state compared with the whole. If made on a different basis please state the reason therefor.

FUNDED AND UNFUNDED DEBT.

	Total.	Wisconsin lines.
1. Describe severally all outstanding classes of bonds, including amount, dates of issue, interest, where and when payable.....		
2. Amount of debt not secured by mortgage.....		
3. Total funded and unfunded debt.....		
No record, see page 2.		
4. Net cash realized from bonded debt, above described.....		
5. Proportion of debt, bonded and floating, for Wisconsin.....		

COST OF ROAD AND EQUIPMENT.

	Total.	Wisconsin lines.
1. What amount has been expended for right of way, during the year ending, Sept. 30, 1877?	\$1,365 00	
2. What for real estate, and for what purpose purchased? None except for right of way.		
3. What has been expended for new fences during the year ending, Sept. 30, 1877?	1,575 17	
4. What for new buildings?	498 84	
5. Cost of new steel rail laid in excess of cost of new iron.....	4,550 50	
6. What amounts, if any, have been paid for roads or portions of roads not built by company during the time mentioned?		
7. Total expended between June 30, 1876, and Sept. 30, 1877.....	\$7,989 51	
8. Total cost of entire line, as per last report	\$10,132,845 76	
9. Total cost of entire line, to date.....	\$10,140,835 27	

**ORIGINAL COST AND PRESENT ESTIMATED VALUE OF TOTAL
PROPERTY IN THIS STATE.**

DESCRIPTION OF PROPERTY.	Total.	In Wiscon- sin.
1. What amount has been expended for grading during year ending Sept. 30, 1877
2. How much for bridges.....do...	
3. How much for tunnels.....do...	
4. How much for iron bridges.....do...	
5. How much for wooden bridges.....do...	
6. How much for ties and tying.....do...	
7. How much for iron rails. No. miles .. Lbs. wt. per yard.....	
8. How much for steel rail No. miles... Lbs. weight per yard..... Nothing	
9. How much for chains, spikes, fish-bar..do...	
10. How much for laying track.....do...	
11. How much for passenger and freight stations, fixtures and furniture, as per schedule. No. stations....	
12. How much for engine and car shops. No..	
13. How much for machine shops. No....do...	
14. How much for machinery and fixtures.do...	
15. How much for engine houses. No. ....do...	
16. How much for car sheds. No....do...	
17. How much for turn tables. No....do...	
18. How much for track and other scales. No..	
19. How much for wood sheds and water stations. No....	
20. How much for fencing. No. miles...
21. How much for elevators. No....	
22. How much for locomotives and tenders. No... Av. wt. tons....	
23. How much for snow plows, as per schedule. No... Av. wt. tons....	
24. How much for wreckers. No.. Av. wt. tons	
25. How much for passenger cars, 1st class. No... Av. wt. tons....	
26. How much for passenger cars, 2d class. No. .. Av. wt. tons....	
27. How much for baggage cars. No.. Av. wt. tons....	
28. How much for mail cars. No.. Av. wt. tons	
29. How much for exp. cars. No.. Av. wt. tons	
30. How much for freight cars, closed. No. ... Av. wt. tons
31. How much for platf'm cars. No.. Av. wt. tons	
32. How much for hand cars. No.. Av. wt. tons	
33. How much for machinery and tools to accom- pany trains, repair track, etc., used by track- men or others.....	
34. How much for all other property not enum'd.	
35. Total amount expended between June 30, 1875, and Sept. 30, 1876.....	

Nothing for construction except as given on page 3.

CHARACTERISTICS OF ROAD.

LENGTH OF ROAD.	MILES.		Weight of rail per yard.
	Entire Length.	Length in Wis- consin.	
1. Length of main line of road from St. Croix Lake Elroy	177 $\frac{1}{10}$	177 $\frac{1}{10}$	50@60
2. Length of main line from Elroy to St. Paul (leased from St. Croix river to St. Paul).....	197 $\frac{1}{10}$	177 $\frac{1}{10}$	50@60
*BRANCHES — Name each.			
3. Length of branch			
From Stillwater Junction to Stillwater—leased.	8 $\frac{1}{10}$		50@60
4. Length of branch			
From — to —. Length of double track on branch			
5. Length of branch			
From — to —. Length of double track on branch			
6. Length of branch			
From — to —. Length of double track on branch			
7. Total length of main line and branches.....	201 $\frac{1}{10}$		
8. Aggregate length of tracks operated by this company, computed as single track, as above, 201 $\frac{1}{10}$ miles.			
9. Aggregate length of sidings and other track not above enumerated, about 8 $\frac{1}{10}$ miles.			
10. Number of junction stations, seven.			
11. What is the gauge of your lines? 4 feet 8 $\frac{1}{2}$ inches.			

DOINGS OF THE YEAR IN TRANSPORTATION.

CHARACTER OF SERVICE.	Number of persons Employed.	Average salary per annum.
1. Division and assistant superintendents.....		
Clerks in all offices.....		
Master and assistant mechanics		
Conductors		
Engineers		
Brakemen		
Flagmen, switch-tenders, gate-k'pers and watchmen		
Station agents.....		
Section men		
Laborers....		
Other employees.....		

* This includes leased lines — designate them as such — the earnings, expenses, etc., of which are given in this report.

Doings of the Year in Transportation — continued.

MILEAGE AND TONNAGE.	MILES.	
	Whole line.	In Wis-consin.
2. Number of miles run by passenger trains.....	216 068	No record.
3. Number of miles run by freight and mixed trains not including switching	240,202	"
4. Number of miles run by working trains...	83,288	"
5. Total mileage, not including switching.....	539,558	"
6. Total number of passengers carried.....	118,085	No record.
7. Total number tons freight carried one mile....	23,614,475	"
8. Total number passengers carried one mile.....	7,083,919	"
9. Average distance traveled by each passenger ..	59 $\frac{2}{10}$ miles.	"
Miles per hour.		
10. The highest rate of speed allowed for express passenger trains.....		
11. Schedule rates of same, including stops.....		
12. The highest rate of speed allowed for mail and accommodation trains.....		
13. Schedule of same, including stops.....		
14. The highest rate of speed allowed for freight trains.....	15	
15. Schedule rate of same, including stops, about..	15	
16. Amount of freight carried per car. No record..		
17. TOTAL FREIGHT IN TONS.		
Grain. No record		
Flour. No record		
Provisions. No record.....		
Salt, cement, water-lime and stucco. No record ..		
Manufactures, including agricultural imple- ments, furniture and wagons. No record ..		
Live stock. No record.....		
Lumber and forest products. No record.....		
Iron, lead and mineral products. No record.....		
Stone, brick, lime, sand, etc. No record.....		
Coal. No record.....		
Merchandise and other articles. No record....		
Total tons.....		

EARNINGS DURING THE YEAR ENDING SEPTEMBER 30, 1877.

MONTHLY EARNINGS FROM ALL SOURCES.

MONTHS.	PASSENGERS.		FREIGHT.		MAILS, EXPRESS, AND ALL OTHER SOURCES.		TOTALS.	
	Whole Line.	Wisconsin.	Whole Line.	Wisconsin.	Whole Line.	Wisconsin.	Whole Line.	Wisconsin.
1876.								
October.....	\$32,942 85	\$23,846 59	\$56,431 19	\$51,623 96	\$1,337 09	\$1,223 11	\$90,711 13	\$82,691 66
November.....	22,511 94	19,914 06	55,173 26	48,810 71	2,743 16	2,425 72	80,432 39	71,150 49
December.....	17,015 83	15,052 19	48,307 05	42,732 42	2,783 25	2,462 07	68,106 13	60,246 68
1877.								
January.....	10,614 20	9,389 32	30,603 13	27,071 53	2,826 61	2,500 42	44,043 94	38,961 27
February.....	11,835 52	10,469 70	28,865 30	25,534 24	2,034 78	2,374 96	43,385 60	38,378 90
March.....	16,271 70	14,393 95	31,410 96	27,786 14	2,893 77	2,559 83	50,576 43	44,739 92
April.....	20,226 75	17,892 58	41,297 11	37,416 03	2,723 66	2,408 47	65,246 52	57,717 07
May.....	17,846 70	15,787 19	32,030 51	28,334 19	2,854 34	2,524 95	52,731 55	46,646 33
June.....	18,467 40	16,155 89	33,720 50	30,340 01	2,755 88	2,479 38	54,943 78	48,975 28
July.....	18,615 16	16,445 47	28,235 95	25,254 90	2,763 07	2,485 54	49,613 18	44,185 91
August.....	20,446 63	18,176 08	33,139 07	30,276 22	2,836 37	2,548 63	56,422 07	51,000 93
September.....	22,211 00	19,574 66	58,728 49	55,122 65	2,684 73	2,410 55	83,624 23	77,107 86
Totals.....	\$229,005 68	\$203,097 68	\$478,947 55	\$430,301 99	\$31,833 71	\$22,402 63	\$739,836 94	\$661,802 30

1. Earnings per mile of road.....	\$8,677 12
2. Earnings per mile of road on freight.....	2,380 45
3. Earnings per mile on passengers.....	1,138 19
4. Earnings per train-mile run, on freight.....	1 38
5. Earnings per train-mile run, on passengers.....	1 20
6. Of the earnings of the entire line, what is the ratio of the passenger to the freight?.....	as .. to ..
7. Average gross earnings per mile [201 $\frac{1}{2}$ miles] of road, exclusive of sidings.....	8,677 12
8. Average net earnings per mile [.. miles] of road, exclusive of sidings.....	.....
9. Average net earnings per train-mile.....	.....

OPERATING EXPENSES.

Repairs of engines and tenders.....	\$28,006 69
“ cars	46,577 64
“ buildings	2,532 84
“ fences, gates and crossings	626 99
“ bridges and culverts.....	18,842 88
“ track.....	158,574 49
“ tools and machinery	4,466 43
Fuel used by locomotives	40,024 16
Fuel and lights used in cars and at stations.....	5,205 50
Oil and waste used.....	5,694 46
Office and station furniture and expenses.....	1,966 29
Furniture and fixtures for cars.....	591 21
Foreign agents.....	7,441 52
Advertising	4,633 93
Stationery, printed blanks, tickets, etc.	3,329 42
Engine-men, firemen and wipers.....	42,323 34
Conductors, baggagemen and brakemen.....	27,045 11
Laborers and switchmen at stations.....	31,798 93
Agents and clerks.....	44,959 60
Superintendence.....	27,569 83
Rents	12,692 28
Loss and damage (freight and baggage	488 51
“ “ (stock killed, etc.).....	1,856 66
Injury to persons	951 40
Teaming freight, baggage and mails	51 67
Insurance	1,398 40
Miscellaneous expenses.....	13,592 78
Car hire balance.....	9,967 04
New York office expenses.....	47 01
Extraordinary renewals and repairs.....	8,606 43
Total.....	\$551,893 44
Add for taxes.....	27,609 08
Add for rent of Hudson branch.....	10,599 96
*Add for rent of St. Paul, Stillwater & Taylor Falls R. R.	12,622 32
Add interest and exchange	4,726 19
Total.....	\$607,580 99

* From January 1 to Sept. 30, 1877.

Expenses, etc. — continued.

PAYMENTS IN ADDITION TO OPERATING EXPENSES.

	Belonging to Whole Line.	Belonging to Wisconsin.
15. New steel rail, excess of cost over iron rail, old track	See page 8.	.....
16. New rail on new track .....		.....
17. New equipment .....		.....
18. New bridges and culverts (not including re- placements) .....		.....
19. Real estate bought during the year. ....		.....
20. New tools and machinery .....		.....
21. New buildings. ....		.....
22. Total paid for new investment on the length of the company's line since date of last report .....		.....
23. Amounts paid in cash, stock, bonds, or other- wise, for extensions, new lines and branches, during the past year — specify particularly. ....		.....
Total now investment.....		.....
24. For interest on bonds .....		.....
25. Dividends—rate — per cent.— on preferred stock .....		.....
26. Dividends—rate — per cent.— on common stock. ....		.....
Total payments in addition to operating expenses .....		.....
28. What amount of money have you expended for building roads out of the state, from proceeds arising from business done on your roads in this state?....		.....
29. How was amount of dividends paid the past year — cash, stock, or other wise? Specify amounts, and manner of payment.		

GENERAL BALANCE SHEET, 1st OF OCTOBER, 1877.

[FROM LEDGER OF WM. H. FERRY, RECEIVER.]

ASSETS.	AMOUNT.	LIABILITIES.	AMOUNT.
Improvement account.....		Floating debt; covering pay rolls unpaid;	
Stock of material and fuel; balance due from	\$247 80	vouchers for supplies, etc., not yet due;	\$104,805 09
station agents, U. S. P. O. Dep't., Am. Express		taxes not yet due, etc.....	50,867 65
Co., various individuals and corporations;		Income account	
cash on hand, etc., less balance due to Railroad	154,925 44	Total.....	\$155,172 74
Co.'s and Transportation lines			
Total.....	\$155,172 74		

1. What regulations govern your employees in regard to crossings of other railroads, and are they found to be sufficient?
Full stop 400 feet from crossing.
2. What regulations govern your employees in regard to crossings of public highways? And are these regulations found to be sufficient?
Bell rung and whistle sounded.
3. What platform and coupler between passenger cars do you use?
Miller coupler buffer and platform.
4. What kind of brakes do you use on passenger trains?
Westinghouse air brakes and hand brakes on each car.

U. S. MAIL.

5. What is the compensation paid you by the U. S. government for the transportation of its mails, and on what terms of service?
\$68.86 per mile per annum Elroy to St. Paul; \$27.00 per mile per annum Stillwater Junction to Stillwater.
Postal cars are furnished for exclusive use of P. O. Department on day trains.

EXPRESS COMPANIES.

6. What express companies run on your road, and on what terms, and what conditions as to rates, use of track, machinery, repairs of cars, etc.; what kind of business is done by them, and do you take their freights at the depot, or at the office of such express companies?
The American Express Co. The freight is taken at depots. They occupy one half space of baggage car which is lighted, warmed and repaired by the railway. The Express Company pay \$60 per working day on a limited tonnage.

TRANSPORTATION COMPANIES.

7. What freight and transportation companies run on your road, and on what terms, and on what conditions as to rates, use of track, machinery, repairs of cars, etc.? Do they use the cars of your company, or those furnished by themselves, and are their cars or their freight given any preference in speed or order of transportation, and if so, in what particular?
Cars of connecting roads and transportation companies are hauled in our trains in the interchange of business. When such cars are used, $\frac{3}{4}$ c. @ 1c. per mile per car is paid to owners for actual distance run in our service.

SLEEPING CARS.

8. Do sleeping or dining cars run on your road, and if so, on what terms are they run, by whom are they owned, and what charges are made in addition to the regular passenger rates?
Pullman Palace sleeping cars run on all passenger trains, for the use of which this road pays two cents per mile run, which covers the use of same and ordinary repairs.
In case of accident this road pays the cost of repairs. About \$1.00 for double berth is charged in addition to regular first-class passenger fare.

ADDITIONAL QUESTIONS.

9. Have you acquired any additional chartered rights or privileges under the special or general laws of this state, directly or indirectly, since your last report?
Not any.
10. Have you acquired any such additional rights or privileges under the laws, general or special, of any other state, since your last report?
Not any.
11. Have you acquired any lines in or out of this state, by purchase, lease, consolidation, or otherwise, since your last report? If yes, give full particulars relating thereto, including length of line, location thereof, at what point or place connection is made with old line; terms of purchase or lease, and brief statement of reasons for making such purchase or lease, and whether made by consent of stockholders?
Not any.
12. Do you, by purchase or ownership of capital stock, or in any other manner, control any other railroad corporation owning or having under its control a parallel or competing line?
13. Does any officer of your company act as the officer of any other railroad corporation, owning or having the control of a parallel or competing line?
14. What running arrangements have you with other railroad companies, setting forth the contracts for the same, made since the date of your last report?
Not any.
15. Have you such arrangements with other railroad companies crossing or connecting with your lines, as enable passengers to make close connections with trains on such lines, at all such crossings or connecting points? If so, when were such arrangements made? If not at all such points, state at what points such connections are not made, and the reasons therefor.
Connection is made with all roads at junction points.
16. Have any swamp or other state lands been granted your company since the date of your last report? If so, how many acres?
None.
17. Have any United States lands been granted to your company, directly or indirectly, since the date of your last report? What number acres received by your company, directly or indirectly, since date of last report?
2,984.07 acres.
18. What number acres sold and conveyed since date of your last report?
85,841.97 acres.
19. Average price per acre realized?
\$5.82.
20. To what corporations have you sold land? How much, and what price, since the date of your last report?
None.
21. Number of acres now held by company?
528,784.69 acres.
22. Average price asked for lands now held by company?
No estimate.
23. Value of donations of right of way or other real estate received since the date of your last report?
None.
24. Amount of city, county and town aid granted to company in exchange for stock, or otherwise? Specify particulars since date of last report.
Nothing.
25. Total cash amount realized from such aid since date of your last report?
Nothing.

26. Amount of land sold, but not conveyed, under contracts now in force?
180,158.59 acres.
27. The whole amount of cash, principal and interest, received for lands hitherto sold and conveyed, since date of last report? } \$151,282.74.
28. Whole amount of cash received, principal and interest, on outstanding contracts in force, and hitherto sold and conveyed since date of last report? }
29. Whole amount of cash received, principal and interest, on contracts forfeited, since date of last report?
None.
30. Whole amount of cash received for stumpage, trespasses, etc., since date of last report?
\$8,989.70.
31. What have been your total receipts from lands sold, and contracted to be sold, since the date of last report?
\$190,760.77
32. What is the aggregate sum of receipts on account of lands, from all sources whatever, up to present time?
\$1,448,388.73.
33. What is the amount now due the Company on lands sold, or contracted to be sold?
\$515,930.41.
34. Are there any terminal points or places, on your lines in, or out, of this state, to and from which the larger portion of the freight transported on your line is carried? If so, name them.
Chicago, Milwaukee, St. Paul and Minneapolis.
35. † Have you made any advance in the rates of freight, from stations on your lines, to such terminal points since the enactment of chapter 57 of laws of 1876?
The tariffs attached to the last report are still in force.
36. † Have you made any reductions in such rates, from any stations, since the passage of said chapter?
If you answer either of the questions in the affirmative, annex to your reply schedules, naming the stations, with distance and rates in force at the time, and since the passage of said chapter, on 1st, 2d, 3d and 4th class of freight, and upon flour, grain, live stock, agricultural implements, salt, and coal.
The tariffs attached to the last report are still in force.
37. * † Have you made such advance or reduction on your rates of freight between other stations on your line? If yes, annex a schedule to your reply, showing what the advance or reduction has been on the articles above named.
The tariffs attached to the last report are still in force.
38. What is your present tariff per mile for passengers, both through and local?
Local tariff hereto attached. The through rates are not governed by a fixed tariff, but are made to meet the requirements of circumstances.
39. What proportion of the passengers carried by you, in this State, purchase round trip tickets? And what proportion purchase 500-mile tickets?
No record kept.
40. † Have you made any advance in the rates of freight for lumber, since the passage of chapter 57, of the laws of 1876? If so, annex to your reply a schedule, naming the stations and rates in force both at the time and since the passage of said chapter.
The tariffs attached to the last report are still in force.
41. Has your Company any rule governing your conductors, engineers, and trainmen concerning the use of intoxicating liquors? If so, what is it, and is it enforced?
The use of intoxicating liquors involves instant dismissal.

* The "distance tariff," with both rates noted thereon, will be a sufficient answer.

† Classification revised to Sept. 1, 1, 1877, hereto attached.

ACCIDENTS.

Number of accidents.	STATEMENT OF EACH ACCIDENT. Give name of person, date and place of accident.	PASSENGERS.				EMPLOYEES.				OTHERS.				Damages claimed.	Damages paid.
		From causes beyond their control.	Killed.	Injured.	By their own misconduct or want of caution.	From causes beyond their control.	Killed.	Injured.	By their own misconduct or want of caution.	From causes beyond their control.	Killed.	Injured.	By their own misconduct or want of caution.		
1	1 A. Walbensinger, Nov. 10, 1876, Red Cedar Bridge..														
2	2 John Brannan, Oct. 22, 1876, near Merrillan						1						1		
3	3 Grant, Dec. 24, 1876, Eau Claire														
4	4 Frank Sweeney, March 17, 1877, near Wilson														
5	5 Enos Warden, May 13, 1877, near Hersey			1											
6	6 Chas Hovey, June 11, 1877, near Wis. Valley Junc.														
7	7 E. Go-drich, Sept. 13, 1877, Elk Mound						1								
8	8 P. A. Sharpe, Sept. 5, 1877, near Camp Douglas														
9	9 Jerry Connor, Sept. 23, 1877, Eau Claire														
	Total			1			2	4					1		

¹ Injured by slipping into culvert after leaving the cars.

² Drunk on track asleep.

³ Slipped off bridge in the dark.

⁴ Drunk, and probably asleep on track. Not on duty at the time.

1. Of the above accidents, those numbered as follows were caused by broken rails.
Total No.
2. Of the above accidents those numbered as follows were caused by inattention of employees:
Total No....
3. Of the above accidents those numbered as follows were caused by collisions not properly coming under 2:
Total No.
4. Of the above accidents those numbered as follows were caused by explosions:
Total No.
5. Amount paid as damages caused by fire from locomotives.

NUMBER AND KIND OF FARM-ANIMALS KILLED, AND AMOUNT OF DAMAGES PAID THEREFOR.

	Number Killed.	Amount Paid.
1. Cattle.....	44	\$800 00
2. Horses	4	195 00
3. Mules.....	.....	.....
4. Sheep.....	5	12 50
5. Hogs.....	5	.....
6. Total	58	\$1,007 50

7. Amount claimed yet unsettled, or in litigation..
\$182.00.

STATE OF WISCONSIN, *County of St. Croix* — ss.

E. W. Winter, General Superintendent, and C. D. W. Young Auditor, of the West Wisconsin Railway Company, and of Wm. H. Ferry, Receiver, from June 1st. 1877, being duly sworn, depose and say that they have caused the foregoing statements to be prepared by the proper officers and agents of this company, and of said receiver, and having carefully examined the same declare them to be a true, full and correct statement of the condition and affairs of said company, on the first day of October, A. D. 1877, to the best of their knowledge and belief.

Signed.

[SEAL.]

E. W. WINTER,
C. D. W. YOUNG,

Subscribed and sworn to before me, a notary public, this fifteenth day of November, A. D. 1877.

[SEAL.]

S. A. QUALE,
Notary Public, St. Croix Co., Wis.

REPORT
OF THE
PHILLIPS & COLBY CONSTRUCTION COMPANY,
OPERATING THE
WISCONSIN CENTRAL RAILROAD,
For the year ending September 30, 1877.

OFFICERS AND OFFICES OF THE COMPANY OPERATING.

NAMES.	OFFICES.	ADDRESS.	SALAR'S.
E. B. Phillips	President	Milwa'kee, Wis.	.....
.....	1st Vice-President .....	.....	.....
Henry Pratt	Secretary	Milwa'kee, Wis.	.....
E. H. Abbott	Solicitor	Milwa'kee, Wis.	.....
Chas. L. Colby	Treasurer	Boston, Mass.	.....
E. B. Phillips	General Manager	Milwa'kee, Wis.	.....
Edward Bacon	Superintendent	Milwa'kee, Wis.	.....
.....	Chief Engineer .....	.....	.....
Henry Pratt	General Ticket Agent ..	Milwa'kee, Wis.	.....
M. H. Riddell	General Freight Agent.	Milwa'kee, Wis.	.....
Henry Pratt	Auditor	Milwa'kee, Wis.	.....
Total salaries .....	.....	.....	.....

1. General offices at Milwaukee, Wis., and Boston, Mass.

NAMES OF DIRECTORS.	RESIDENCE.
E. B. Phillips	Milwaukee, Wis.
Chas. L. Colby	Milwaukee, Wis.
Henry Pratt	Milwaukee, Wis.

EXECUTIVE COMMITTEE.

None.

2. Date of annual election of directors.
First Tuesday in March.
3. Name and address of person to whom correspondence, concerning this report, should be directed.
E. B. Phillips, President, Milwaukee, Wis.

CAPITAL STOCK.

1. Capital stock authorized by charter..... \$200,000 00
2. How many kinds of stock?
One.
3. Amount of common stock 200,000 00
4. Amount of preferred stock.....
5. Total capital stock \$200,000 00
6. *Proportion of stock for Wisconsin..... All.
7. Rate of preference.
None.
8. How much *common* stock has been issued during the year ending September 30, 1877?
None.
9. For what purpose? and what was received therefor?
10. How much *preferred* stock has been issued during the year ending September 30, 1876?
None.
11. For what purpose? and what was received therefor?

FUNDED AND UNFUNDED DEBT.

	Total.	Wisconsin lines.
1. Describe severally all outstanding classes of bonds, including amount, dates of issue, interest, where and when payable.....		
2. Amount of debt not secured by mortgage.....		
3. Total funded and unfunded debt.....		
4. Net cash realized from bonded debt, above described		
5. Proportion of debt, bonded and floating, for Wisconsin.....		

* Unless some good reason exists to the contrary, this proportion—and all other estimates of the same character—should be for the miles of road in this state compared with the whole. If made on a different basis please state the reasons therefor.

COST OF ROAD AND EQUIPMENT.

	Total.	Wisconsin lines.
1. What amount has been expended for right of way, during the year ending, Sept. 30, 1877?	\$22,498 08 .....	.....
2. What for real estate, and for what purpose purchased? .....	.....	.....
3. What has been expended in construction dur- ing the year ending, Sept. 30, 1877?	1,106,548 05 .....	.....
4. What for improvements? .....	.....	.....
5. What for other items of expense, for construc- tion and equipment .....	.....	.....
6. What amounts, if any, have been paid for roads or portions of roads not built by company during the time mentioned? .....	.....	.....
7. Total expended between Sept. 30, 1876, and Sept. 30, 1877	\$1,128,976 08 .....	.....
8. Total cost of entire line, as per last report	\$8,836,555 81 .....	.....
9. Total cost of entire line, to date	\$9,965,531 89 .....	.....

**ORIGINAL COST AND PRESENT ESTIMATED VALUE OF TOTAL
PROPERTY IN THIS STATE.**

DESCRIPTION OF PROPERTY.	Total.	In Wiscon- sin.
1. What amount has been expended for grading during year ending Sept. 30, 1877	\$256,502 68	.....
2. How much for bridges.....	100,025 06	.....
3. How much for clearing and grubbing.....	45,091 53	.....
4. How much for ballast.....	29,928 79	.....
5. How much for docks.....	9,342 20	.....
6. How much for ties.....	80,879 71	.....
7. How much for iron rails. No. miles .. Lbs. wt. per yard.....	373,571 07	.....
8. How much for steel rail No. miles... Lbs. weight per yard.....	.....	.....
9. How much for chains, spikes, fish-bar. do...	.....	.....
10. How much for laying track..... do...	25,635 56	.....
11. How much for passenger and freight stations, fixtures and furniture, as per schedule. No. stations....	36,800 09	.....
12. How much for engine and car shops. No. ....	.....	.....
13. How much for machine shops. No. do...	.....	.....
14. How much for machinery and fixtures. do...	3,228 59	.....
15. How much for salaries, rents, etc., acc't of construction	77,104 46	.....
16. How much for engineering.....	28,064 37	.....
17. How much for outfit.....	3,981 23	.....
18. How much for telegraph.....	6,277 82	.....
19. How much for wood sheds and water stations. No.	10,570 23	.....
20. How much for fencing. No. miles... ..	8,358 72	.....
21. How much for elevators. No. ....	.....	.....
22. How much for locomotives and tenders. No. Av. wt. tons....	.....	.....
23. How much for snow plows, as per schedule. No. Av. wt. tons....	.....	.....
24. How much for wreckers. No. Av. wt. tons	.....	.....
25. How much for passenger cars, 1st class. No. Av. wt. tons....	.....	.....
26. How much for passenger cars, 2d class. No. ... Av. wt. tons....	61,220 99	.....
27. How much for baggage cars. No. Av. wt. tons....	.....	.....
28. How much for mail cars. No. Av. wt. tons	.....	.....
29. How much for exp. cars. No. Av. wt. tons	.....	.....
30. How much for freight cars, closed. No. Av. wt. tons ....	.....	.....
31. How much for plat'f'm cars. No. Av. wt. tons	.....	.....
32. How much for hand cars. No. Av. wt. tons	.....	.....
33. How much for machinery and tools to accom- pany trains, repair track, etc., used by track- men or others.....	.....	.....
34. How much for all other property not enum'd.	.....	.....
35. Total amount expended between Sept. 30, 1876, and Sept. 30, 1877.....	\$1,106,543 05	.....

CHARACTERISTICS OF THE ROAD.

LENGTH OF ROAD.	MILES.		Weight of Rail per yard.
	Entire Length.	Length in Wisconsin.	
1. Length of main line of road from Menasha to Ashland, Lake Superior.....	249.3	.....	.....
2. Length of double track on main line.....	.....	.....	.....
* BRANCHES — Name each.			
3. Stevens Point to Portage. Length of branch... From — to —. Length of double track on branch	71.2	.....	.....
4. Milwaukee & Northern Railway. Length of line leased	120.0	.....	.....
5. Chicago, Milwaukee & St. Paul Railway. Length of branch..... From Schwartzburg to Menasha & Green Bay.....	9.0	.....	.....
6. Length of branch..... From Milwaukee to Schwartzburg.....		.....	.....
7. Total length of main line and branches.....	449.7 $\frac{5}{8}$	.....	.....
8. Aggregate length of tracks operated by this company <i>computed as single track</i> , 440 $\frac{3}{4}$ miles.			
9. Aggregate length of sidings and other track not above enumerated, 33 $\frac{1}{2}$ miles.			
10. Number of junction stations, 7.			
11. What is the gauge of your line? 4 feet, 8 $\frac{1}{2}$ inches.			

DOINGS OF THE YEAR IN TRANSPORTATION.

CHARACTER OF SERVICE.	No. of persons employed.	Average salary per annum.
1. Division and assistant superintendents .....	.....	.....
Clerks in all offices.....	20	\$683 00
Master and assistant mechanics.....	78	655 20
Conductors	24	800 00
Engineers	28	991 40
Firemen.....	26	569 66
Brakemen	47	540 00
Flagmen, switch-t'lders, gate-k'p'rs & watchmen	20	452 66
Station agents.....	62	466 00
Section men	226	428 00
Laborers.....	22	817 60
Other employees	61	520 00

* This includes leased lines — designate them as such — the earnings, expenses, etc., of which are given in this report.

Doings of the Year in Transportation—continued.

MILEAGE AND TONNAGE.	MILES.	
	Whole line.	In Wisconsin.
2. Number of miles run by passenger trains	831,167	.....
3. Number of miles run by freight and mixed trains	416,133	.....
4. Number of miles run by construction and other trains	35,629	.....
5. Total mileage	782,929	.....
6. Total number of passengers carried	152,072 $\frac{1}{2}$	.....
7. Total number of freight carried one mile	22,984,286 $\frac{1}{1000}$	.....
8. Total number passengers carried one mile	5,889,367	.....
9. Average distance traveled by each passenger	38 $\frac{7}{10}$	.....
Miles per hour.		
10. The highest rate of speed allowed for express passenger and mail trains	25	.....
11. Schedule rates of same, including stops	22	.....
12. The highest rate of speed allowed for mail and accommodation trains	25	.....
13. Schedule of same, including stops	22	.....
14. The highest rate of speed allowed for freight trains	12	.....
15. Schedule rate of same, including stops	9	.....
16. Amount of freight carried per car	7 $\frac{1}{10}$ tons.	.....
17. TOTAL FREIGHT IN TONS.	Whole line.	In Wisconsin.
Grain	27,163.48	.....
Flour	7,750.16	.....
Mill feed	4,080.81	.....
Provisions	2,543.51	.....
Potatoes and other farm products	4,173.51	.....
Salt, cement, water lime and stucco	1,814.03	.....
Manufactures, including agricultural implements, furniture and wagons	4,753.75	.....
Hay	1,805.43	.....
Live stock	3,404.05	.....
Lumber and forest products	124,273.22	.....
Iron, lead, and mineral products	3,397.77	.....
Stone, brick, lime, sand, etc	6,552.47	.....
Coal	4,176.73	.....
Merchandise and other articles	25,996.62	.....
Total tons	221,835.54	.....

EARNINGS DURING THE YEAR ENDING SEPTEMBER 30, 1877.

MONTHLY EARNINGS FROM ALL SOURCES.

MONTHS.	PASSENGERS.		FREIGHT.		MAILS, EXPR'S, AND ALL OTH- ER SOURCES.		TOTALS.	
	Whole Line.	Wiscon- sin.	Whole Line.	Wiscon- sin.	Whole Line.	Wiscon- sin.	Whole Line.	Wiscon- sin.
1876.								
October	\$20,267 06		\$46,450 10		\$2,623 46		\$69,340 62	
November....	20,051 66		41,745 18		2,514 43		64,311 27	
December	17,721 69		43,084 85		2,327 95		63,134 69	
1877.								
January	12,348 04		45,333 69		2,245 50		59,927 23	
February	13,761 06		40,189 84		2,471 62		56,423 52	
March	16,292 27		45,692 17		2,588 05		64,572 49	
April	19,040 82		35,590 57		2,464 96		57,096 35	
May	15,656 82		38,236 18		2,588 09		56,480 59	
June	15,808 76		35,639 75		2,644 49		54,093 00	
July	18,170 81	Same.	35,427 52	Same.	2,844 14	Same.	56,441 97	Same.
August	15,536 15		32,890 82		2,819 95		51,246 42	
September....	17,553 18		45,025 60		3,096 87		65,675 60	
Totals.....	202,207 47	....	485,305 77	....	81,229 51	....	718,743 75	....

1. Earnings per mile of road 449.5..... \$1,598 98
2. Earnings per mile of road on freight 449.5..... 1,079 66
3. Earnings per mile of road on passengers 449.5..... 449 85
4. Earnings per train-mile run, on freight (416,183)..... 116 6
5. Earnings per train-mile run, on passengers (331,167)..... 61
6. Of the earnings of the entire line, what is the ratio of the pas-
senger to the freight? As..... 1 to 2.4
7. Average gross earnings per mile [449.5 miles] of road, ex-
clusive of sidings..... 1,598 98
8. Average net earnings per mile [449.5 miles] of road, exclu-
sive of sidings..... 566 78
9. Average net earnings per train-mile (789,929)..... .825

EXPENSES DURING THE YEAR ENDING SEPTEMBER 30, 1877.

PAYMENTS FOR CURRENT AND OPERATING EXPENSES.

	Belonging to whole line	Belonging to Wis.
1. Maintenance of way:		
Repairs of track, including new and re-rolled iron rail in place of old iron rail... ..	\$168,000 42	
Repairs of bridges.....	5,119 11	
Repairs of fences.....	899 24	
	\$118,518 77	
New steel rail, valued only as iron rail.*		
Other expenses on way		
2. Maintenance of buildings	5,406 75	
3. Maintenance of rolling stock:		
Locomotives.....	\$20,917 16	
Passenger, baggage, mail and ex- press cars	19,109 97	
Freight cars.....	18,268 08	
Dump cars.....	566 88	
Shop tools and machinery.....	1,101 64	
	59,958 78	
4. Conducting transportation, and gen- eral expenses:		
Management and general office... ..	45,194 01	
Foreign agency and advertising.. ..	4,178 80	
Agents and station service.....	43,188 16	
Conductors, bag. and brakemen ..	45,286 59	
Engineers, firemen, watchmen and wipers	55,241 09	
Train and station supplies.....	8,175 29	
Fuel consumed.....	52,543 97	
Oil and waste.....	8,934 87	
Personal expenses		
Damage to persons.....	615 17	
Damage to property by fire and cattle killed	1,677 79	
Loss and damage to fr't and bag..	1,091 49	
Legal expenses.....	587 83	
Other general operating expenses, teleg. operating and supplies, car and engine service and sundries	10,480 78	
	282,195 59	
5. Current expenses:		
For taxes.....		
For insurance.....	2,893 48	
	\$463,973 32	
Lease or privilege of other roads whose earnings are included in this report, giving name and amounts paid:		
Mil. & Northern and Chi., Mil. & St. P. R'y	\$145,806 43	
6. Total current operating expenses, being 65 $\frac{1}{10}$ per cent. of earnings	\$463,973 32	

*In substituting steel rail for iron rail, the cost of iron rail only should be charged to operating account, and the excess carried to extraordinary expenses. (See next page.)

Expenses, etc.—continued.

7. Average operating expenses per mile of road, exclusive of sidings (449.5).....	\$1,032 19
8. Average operating expenses per train mile (782,929).....	.593
9. Excess of earnings over operating and current expenses (782,929).....	254,769 43
10. Cost of maintaining track and bridges per mile run (782,929).....	.144
11. Cost of repairs of engines per mile run (782,929).....	.0267
12. Cost of engineers, watchmen, firemen and wipers per mile run (782,929).....	.07
13. Cost of oil and waste per mile run (782,929).....	.011
14. Cost of fuel per mile run (782,929).....	.067

PAYMENTS IN ADDITION TO OPERATING EXPENSES.*

	Belonging to Whole Line.	Belonging to Wisconsin.
15. New steel rails, excess of cost over iron rail, old track		
16. New rail on new track.....		
17. New equipment.....		
18. New bridges and culverts (not including replacements)		
19. Real estate bought during the year		
20. New tools and machinery.....		
21. New buildings... ..		
22. Total paid for new investment on the length of the company's lines since date of last report... ..		
23. Amounts paid in cash, stock, bonds, or otherwise, for extensions, new lines and branches, during the past year—specify particulars... ..		
Total new investments.....		
24. For interest on bonds etc.....		
25. Dividends—rate — per cent.—on preferred stock		
26. Dividends—rate — per cent.—on common stock		
Total payments in addition to operating expenses		
28. What amount of money have you expended for building roads out of the state, from proceeds arising from business done on your roads in this state?.....		

29. How was amount of dividends paid the past year—cash, stock or other wise? Specify amounts and manner of payment.

1. What regulations govern your employees in regard to crossings of other railroads, and are they found to be sufficient?
All trains stop before reaching crossing and proceed only when way is known to be clear. This rule has been found sufficient.
2. What regulations govern your employees in regard to crossings of public highways? And are these regulations found to be sufficient?
Bell is rung at all crossings.
3. What platform and coupler between passenger cars do you use?
Miller.
4. What kind of brakes do you use on passenger trains?
Hand brakes.

U. S. MAIL.

5. What is the compensation paid you by the U. S. government for the transportation of its mails, and on what terms of service?
Rate is not fully determined.

EXPRESS COMPANIES.

6. What express companies run on your road, and on what terms, and what conditions as to rates, use of track, machinery, repairs of cars, etc.; what kind of business is done by them, and do you take their freights at the depot, or at the office of such express companies?
American Express Company. Miscellaneous business. Received at stations. Rate from once to once and a half first class rates.

TRANSPORTATION COMPANIES.

7. What freight and transportation companies run on your road and on what terms, and on what conditions as to rates, use of track, machinery, repairs of cars, etc.? Do they use the cars of your company or those furnished by themselves, and are their cars or their freight given any preference in speed or order of transportation, and if so in what particular?
None.

SLEEPING CARS.

8. Do sleeping or dining cars run on your road, and if so, on what terms are they run, by whom are they owned, and what charges are made in addition to the regular passenger rates?
Sleeping cars run by this company. \$1.50 for double berth from Chicago or Milwaukee to Green Bay or Stevens Point

ADDITIONAL QUESTIONS.

9. Have you acquired any additional chartered rights or privileges under the special or general laws of this state, directly or indirectly, since your last report?
No.
10. Have you acquired any such additional rights or privileges under the laws, general or special, of any other state, since your last report?
No.

11. Have you acquired any lines in or out of this State, by purchase, lease, consolidation or otherwise, since your last report? If yes, give full particulars relating thereto, including length of line, location thereof, at what point or place connection is made with old line; terms of purchase or lease, and brief statement of reasons for making such purchase or lease, and whether made by consent of stockholders?
No, except completion of lines by construction of Northern Division to Lake Superior, and of Southern Division to Portage City.
12. Do you, by purchase or ownership of capital stock, or in any other manner, control any other railroad corporation owning or having under its control a parallel or competing line?
No.
13. Does any officer of your company act as the officer of any other railroad corporation, owning or having the control of a parallel or competing line?
No.
14. What running arrangements have you with other railroad companies, setting forth the contracts for the same, made since the date of your last report?
No change since last report.
15. Have you such arrangements with other railroad companies crossing or connecting with your lines, as enable passengers to make clear connections with trains on such lines, at all such crossing or connecting points? If so, when were such arrangements made? If not at all such points, state at what points such connections are not made, and the reasons therefor?
We make connections with other roads at their crossings to the best of our ability.
16. Have any swamp or other State lands been granted your Company since the date of your last report? If so, how many acres?
None. The land reports herewith we make for the Wisconsin Central Railroad Company, although not properly within our province.
17. Have any United States lands been granted to that Company, directly or indirectly, since the date of your last report? What number acres received by that Company, directly or indirectly, since date of last report?
Yes, 47,004.93 acres.
18. What number acres sold and conveyed since date of your last report?
19,713.13.
19. Average price, per acre, realized?
\$1.95.
20. To what corporations have you sold land? How much, and what price, since the date of your last report?
Wisconsin Valley Railway, 80 acres—\$60.80.
21. Number of acres now held by Company?
422,554.79.
22. Average price asked for lands now held by Company?
Estimated average, \$2.00.
23. Value of donations of right of way or other real estate received since the date of your last report?
24. Amount of city, county and town aid granted to Company in exchange for stock, or otherwise? Specify particulars since date of last report?
25. Total cash amount realized from such aid since date of your last report?
26. Amount of land sold, but not conveyed, under contracts now in force?
10,811.61 acres.
27. The whole amount of cash, principal and interest, received for lands hitherto sold and conveyed, since date of last report?
\$8,199.38.
28. Whole amount of cash received, principal and interest, on outstanding contracts, in force since date of last report?
\$15,128.67.
29. Whole amount of cash received, principal and interest, on contracts forfeited, since date of last report?
\$200.

30. Whole amount of cash received for stumpage, trespasses, etc., since date of last report?
\$87,598.80.
31. What have been your total receipts from lands sold, and contracted to be sold, since the date of last report?
\$54,422 74.
32. What is the aggregate sum of receipts on account of lands, from all sources whatever, up to the present time?
\$167,677 48.
33. What is the amount now due the Company on lands sold, or contracted to be sold?
\$32,579.97.
34. Are there any terminal points or places, on your line, in or out of this State, to and from which the larger portion of the freight transported on your lines is carried? If so, name them.
A larger part of our business has come to and passes through Milwaukee than any other station.
35. Have you made any advance in the rates of freight, from stations on your lines, to such terminal points, since the enactment of chapter 57 of the laws of 1876?
Rates practically the same.
36. Have you made any reductions in such rates, from any stations, since the passage of said chapter?
If you answer either of the questions in the affirmative, annex to your reply schedules, naming the stations, with distance and rates in force at the time, and since the passage of said chapter, on 1st, 2d, 3d and 4th class of freight, and upon flour, grain, live stock, agricultural implements, salt and coal.
37. * Have you made such advance or reduction on your rates of freight between other stations on your line? If yes, annex a schedule to your reply, showing what the advance or reduction has been on the articles above named.
38. What is your present tariff per mile for passengers, both through and local?
Three to four cents.
39. What proportion of the passengers carried by you, in this state, purchase round-trip tickets? And what proportion purchase 500-mile tickets?
41 per cent. 17 1/2 per cent.
40. Have you made any advance in the rates of freight for lumber, since the passage of chapter 57 of the laws of 1876? If so, annex to your reply a schedule, naming the stations and rates in force, both at the time and since the passage of said chapter.
No.
41. Has your Company any rule governing your conductors, engineers and trainmen concerning the use of intoxicating liquors? If so, what is it, and is it enforced?
Extract from rule 24: "The use of intoxicating liquors as a beverage will be considered just cause of dismissal from the service of the company."

* The "distance tariff," with both rates noted thereon, will be a sufficient answer.

ACCIDENTS.

No. of Accidents.	STATEMENT OF EACH ACCIDENT.	PASSENGERS.				EMPLOYEES.				OTHERS.				Damages Claimed.	Damages Paid.
		From causes beyond their control.		By their own misconduct or want of caution.		From causes beyond their control.		By their own misconduct or want of caution.		From causes beyond their control.		By their own misconduct or want of caution.			
		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.		
1	Charles McCredie, Oct. 15, 1876: Milwaukee; lost part of foot; slipped off engine.....														
2	J. G. Scully, fell between cars on moving train, near Gratton, N. v. 30, 1876.....								1						
3	Sam Barry, lying on track near Chelsea, body frozen stiff, Dec. 25, 1876.....														
4	Mighty Wash (Indian) walking on track near Marshfield, March 20, 1877, struck by train, and run over.														
5	Wm Scullin, tramp, stealing a ride, big toe cut off, and foot smashed, Aug. 15, 1877; Chilton.....														
6	Cyrus Welch (alias St. Denis), found dead on track north of Chilton. Sept. 5, 1877; supposed to have fallen from train intoxicated.....														
7	E Coburn, supposed to have fallen from top of car, where he was last seen; Weyauwega, Sept. 8, 1877.														
Total.....														8	1

1. Of the above accidents, those numbered as follows were caused by broken rails.
Total No.....
2. Of the above accidents those numbered as follows were caused by inattention of employees:
Total No.....
3. Of the above accidents those numbered as follows were caused by collisions not properly coming under 2:
Total No.....
4. Of the above accidents those numbered as follows were caused by explosions:
Total No.....
5. Amount paid as damages caused by fire from locomotives.

NUMBER AND KIND OF FARM-ANIMALS KILLED, AND AMOUNT OF DAMAGES PAID THEREFOR.

	Number Killed.	Amount Paid.
1. Cattle	79	.....
2. Horses	15	.....
3. Mules	1	.....
4. Sheep	32	.....
5. Hogs.....	13	.....
6. Total	140	\$1,677 79

7. Amount claimed yet unsettled, or in litigation.

REMARKS.

This is the number of animals killed during the year, but the amount, \$1,677.79, represents what was paid for stock killed prior to as well as during the year.

STATE OF WISCONSIN, } ss.
County of Milwaukee, }

E. B. Phillips, President, and Henry Pratt, Secretary, of the Phillips & Colby Construction Company, operating the Wisconsin Central Railroad, being duly sworn, depose and say, that they have caused the foregoing statements to be prepared by the proper officers and agents of this company, and having carefully examined the same, declare them to be a true, full and correct statement of the condition and affairs of said company, on the first day of October, A. D. 1877, to the best of my knowledge and belief.

[SEAL.]

Signed.

E. B. PHILLIPS,
HENRY PRATT.

Subscribed and sworn to before me, this 20th day of December, A. D. 1877.

[SEAL.]

STEPHEN KNOWLTON,
Notary Public, Wis.

REPORT
OF THE
WISCONSIN VALLEY RAILROAD COMPANY

For the year ending 30th September, 1877.

OFFICERS AND OFFICES OF THE COMPANY OPERATING.

NAMES.	OFFICES.	ADDRESS.	SALARIES.
James F. Joy	President	Detroit, Mich. ....	.....
Jno. N. Dennison	1st Vice President	Boston, Mass. ....	.....
.....	Secretary and Treasurer .....	.....	.....
.....	Treasurer	do .....	.....
.....	General Manager .....	.....	.....
F. O. Wyatt	General Superintendent	Tomah, Wis. ....	.....
.....	Chief Engineer	do .....	.....
C. H. Warren	General Ticket Agent	do .....	.....
do	General Freight Agent	do .....	.....
.....	Auditor .....	.....	.....
Total Salaries .....	.....	.....	.....

1. General offices at Tomah, Wis.

NAMES OF DIRECTORS.	RESIDENCE.
James F. Joy	Detroit, Mich.
H. H. Hunnewell	Boston, Mass.
Nathaniel Thayer	Boston, Mass.
Sidney Bartlett	Boston, Mass.
John A. Burnham	Boston, Mass.
Francis Bartlett	Boston, Mass.
Nathaniel Thayer, Jr.	Boston, Mass.
W. J. Rotch	Boston, Mass.
H. A. Whitney	Boston, Mass.
Seth Reeves	Grand Rapids, Wis.
Alex Steward	Wausau.

EXECUTIVE COMMITTEE.

None.

2. Date of annual election of directors. Second Wednesday in June.
 3. Name and address of person to whom correspondence, concerning this report, should be directed,
 F. O. Wyatt, Supt.

CAPITAL STOCK.

1. Capital stock authorized by charter..... \$3,000,000 00
 2. How many kinds of stock? One common.
 3. Amount of common stock.
 Stock subscribed for by municipalities paid in bonds.. 75,000 00
 Stock subscribed by individuals and other corporations
 paid in cash..... 10,000 00
 Stock subscribed paid for in land..... 25,000 00
 As a part of the consideration for cash received for
 bonds at 80 cents..... 441,000 00
 4. Amount of preferred stock.
 None.
 5. Total capital stock \$551,000 00
 6. Proportion of stock for Wisconsin.*
 All.
 7. Rate of preference.
 None.
 8. How much *common* stock has been issued since Sept. 30th, 1876?
 None.
 9. For what purpose? and what was received therefor?
 10. How much *preferred* stock has been issued since Sept. 30th, 1876?
 None.
 11. For what purpose? and what was received therefor?

FUNDED AND UNFUNDED DEBT.

	Total.	Wisconsin Lines.
1. Describe severally all outstanding classes of bonds, including amounts, dates of issue, interest, where and when payable.	\$1,790,000 00	\$1,790,000 00
Dated March 1, 1873, principal and interest at 8 per cent., payable at Boston, Massachusetts, due March 1, 1893. ....	.....	.....
2. Amount of debt not secured by mortgage?....	None.	.....
3. Total funded and unfunded debt.....	\$1,790,000 00	\$1,790,000 00
4. Net cash realized from bonded debt, above described	1,480,000 00	.....
5. Proportion of debt, bonded and floating, for Wisconsin	All.	.....

*Unless some good reason exists to the contrary, this proportion — and all other estimates of the same character — should be for the miles of road in this state compared with the whole. If made on a different basis, please state the reasons therefor.

COST OF ROAD AND EQUIPMENT.

	Total.	Wisconsin Lines.
1. What amount has been expended for right of way, between Sept. 30, 1876, and Sept. 30, 1877.....	6,838 50	All.
2. What for real estate, and for what purpose purchased?.....	None.	.....
3. What has been expended in construction between Sept. 30, 1876 and Sept. 30, 1877.....	16,699 18	.....
4. What for improvement?.....	.....	.....
Discount on sundry construction accounts..	2,300 00	.....
5. What for other items of expense, for construction and equipment	9,719 34	.....
6. What amounts, if any, have been paid for roads or portions of roads not built by company during the time mentioned.....	None.	.....
7. Total expended between Sept. 30, 1876, and Sept. 30, 1877.....	\$35,057 02	.....
8. Total cost of entire line, as per last report....	\$1,736,791 07	.....
Cost of equipment.....	265,764 53	.....
9. Total cost of entire line to date..	\$2,037,612 62	.....

**ORIGINAL COST AND PRESENT ESTIMATED VALUE OF TOTAL
PROPERTY IN THIS STATE.**

DESCRIPTION OF PROPERTY.	Total.	In Wisconsin.
1. What amount has been expended for grading between Sept. 30, 1876, and Sept. 30, 1877....	\$1,685 78	.....
2. How much for bridges—all wooden	5,199 13	All.
3. How much for tunnels.....		.....
4. How much for iron bridges. [All wooden].....		.....
5. How much for wooden bridges.....		.....
6. How much for ties and tying.....	631 68	.....
7. How much for iron rail, No. miles, $1\frac{1}{4}$; lbs. wt. per yard, 50.....	2,329 92	.....
8. How much for steel rail, No. miles, — lbs. wt. per yard, rerolled.....		.....
9. How much for chains, spikes, fish-bar, etc.,....	829 87	.....
10. How much for laying track	184 87	.....
11. How much for passenger and freight stations, fixtures and furniture, as per schedule; No. stations, 1; section 2.....	594 78	.....
12. How much for engine and car shops, No. — .....		.....
13. How much for machine shops, No. — .....		.....
14. How much for machinery and fixtures .....		.....
15. How much for engine houses, No. — .....		.....
16. How much for car sheds, No. — .....		.....
17. How much for turn tables, No. — .....		.....
18. How much for track and other scales, No. — .....		.....
19. How much for wood sheds and water stations, No. 1.....	214 89	.....
20. How much for fencing, No. miles, 5.....	1,799 97	.....
21. How much for elevators, No. — .....		.....
22. How much for locomotives and tenders, No. — Av. wt. tons, — .....		.....
23. How much for snow plows, as per schedule, No. — Av. wt. tons, — .....		.....
24. How much for wreckers, No. — Av. wt. tons, — .....		.....
25. How much for passenger cars, 1st class, No. — Av. wt. tons, — .....		.....
26. How much for passenger cars, 2d class, No. — Av. wt. tons, — .....		.....
27. How much for baggage cars, No. — Av. wt. tons, — .....		.....
28. How much for mail cars, No. — Av. wt. tons, — .....		.....
29. How much for express cars, No. — Av. wt. tons, — .....		.....
30. How much for freight cars, closed, No. — Av. wt. tons, — .....		.....
31. How much for platform cars, No. — Av. wt. tons, — .....		.....
32. How much for hand cars, No. — Av. wt. tons, — .....		.....
33. How much for machinery and tools to accompany trains, repair track, etc., used by trackmen or others .....		.....
Switches and frogs.....	254 83	.....
Engineering.....	544 71	.....
Right of way.....	6,338 50	.....
Old construction and legal expenses.....	2,928 75	.....
34. How much for all other property not enumerated	10,066 79	.....
35. Total amount expended between Sept. 30, 1876, and Sept. 30, 1877	\$23,087 68	.....

CHARACTERISTICS OF ROAD.

LENGTH OF ROAD.	MILES.		Weight of rail per yard.
	Entire Length.	Length in Wisconsin.	
1. Length of main line of road from Tomah to 1 1.8 miles north of Wausau.....	89 $\frac{1}{8}$	All.	50
2. Length of double track on main line.....			
*BRANCHES — Name each.			
3. Length of branch			
From — to —			
4. Length of branch			
From — to —. Length of double track on branch			
5. Length of branch			
From — to —. Length of double track on branch			
6. Length of branch			
From — to —. Length of double track on branch			
7. Total length of main line and branches.....	89 $\frac{1}{8}$		50
8. Aggregate length of tracks operated by this company, computed as single track, as above, 89 $\frac{1}{8}$ miles.			
9. Aggregate length of sidings and other track not above enumerated, about 11 $\frac{1}{2}$ miles.			
10. Number of junction stations, four.			
11. What is the gauge of your lines? 4 feet 8 $\frac{1}{2}$ inches.			

DOINGS OF THE YEAR IN TRANSPORTATION.

CHARACTER OF SERVICE.	Number of persons Employed.	Average salary per annum.
1. Division and assistant superintendents.....	1	
Clerks in all offices.....	2	\$1,080
Master and assistant mechanics	1	1,440
Conductors	4	8,360
Engineers	5	4,500
Brakemen	8	6,480
Flagmen, switch-tenders, gate-keepers and watchmen	2	1,080
Station agents.....	15	8,500
Section men	50	18,000
Laborers.....	10	4,000
Other employees.....	10	8,000

* This includes leased lines — designate them as such — the earnings, expenses, etc., of which are given in this report.

Doings of the Year in Transportation — continued.

MILEAGE AND TONNAGE.	MILES.	
	Whole line.	In Wis-consin.
2. Number of miles run by passenger trains.....	56,840	All.
3. Number of miles run by freight and mixed trains.....	64,100	"
4. Number of miles run by construction and other trains.....	14,940	"
5. Total mileage.....	135,880	"
6. Total number of passengers carried.....	35,825	All.
7. Total number tons freight carried one mile....	5,205,335.375	"
8. Total number passengers carried one mile....	918,983	"
9. Average distance traveled by each passenger..	1 $\frac{17}{100}$ miles.	"
Miles per hour.		
10. The highest rate of speed allowed for express passenger trains.....	25	All.
11. Schedule rates of same, including stops.....	18	
12. The highest rate of speed allowed for mail and accommodation trains.....	25	
13. Schedule of same, including stops.....	18	
14. The highest rate of speed allowed for freight trains.....	15	
15. Schedule rate of same, including stops.....	8 $\frac{1}{2}$	
16. Amount of freight carried per car, 20,000 Min., 24,000 Max.....	.	
17. TOTAL FREIGHT IN TONS.	Whole line	In Wis-consin.
Grain.....	1,591.59	All.
Flour.....	1,331.55	
Provisions.....	878.88	
Salt, cement, water-lime and stucco.....	263.42	
Manufactures, including agricultural imple-ments, furniture and wagons.	174.86	
Live stock.....	105.4	
Lumber and forest products.....	63,548.55	
Iron, lead and mineral products.....	30.	
Stone, brick, lime, sand, etc.....	418.66	
Coal.....	89.	
Merchandise and other articles.....	6,302.88	
Total tons.....	74,644.28	

EARNINGS DURING THE YEAR ENDING SEPTEMBER 30, 1877.

MONTHLY EARNINGS FROM ALL SOURCES.

MONTHS.	PASSENGERS.		FREIGHT.		MAILS, EXPR'S, AND ALL OTHER SOURCES.		TOTALS.	
	Whole line.	Wis.	Whole line.	Wis.	Whole line.	Wis.	Whole line.	Wis.
1876								
October	\$4,568 48		\$12,548 96		\$484 42		\$17,596 86	
November....	3,890 39		7,873 85		679 75		12,443 49	
December	3,404 27		4,897 83		506 43		8,808 53	
1877								
January	2,255 70	All.	6,032 49	All.	666 97	All.	8,955 16	All.
February	2,648 95		8,740 88		1,070 12		12,459 95	
March	3,624 90		11,686 25		1,118 08		16,424 23	
April	4,569 92		12,762 76		74 77		17,407 45	
May	3,387 96		14,216 72		74 93		18,679 61	
June	3,244 62		11,898 88		130 71		16,274 21	
July	3,512 97		15,298 85		86 00		18,897 82	
August	4,249 22		11,306 25		91 02		15,646 49	
September....	4,707 01		11,541 36		55 62		16,303 99	
Totals.....	\$44,064 39		\$128,799 55		\$5,043 82		\$177,907 79	

1. Earnings per mile of road	\$1,976 75
2. Earnings per mile of road on freight.....	1,431 10
3. Earnings per mile on passenger s.....	545 65
4. Earnings per train-mile run, on freight.....	2.004
5. Earnings per train-mile run, on passengers	\$87 16
6. O. the earnings of the entire line, what is the ratio of the passenger to the freight? As.....	1 to 2 $\frac{1}{16}$
7. Average gross earnings per mile [90 miles] of road, exclusive of sidings	\$1,976 75
8. Average net earnings per mile [90 miles] of road, exclusive of sidings	775 15
9. Average net earnings per train-mile. Total mileage.....	52 $\frac{1}{16}$

EXPENSES DURING THE YEAR ENDING SEPTEMBER 30, 1877.

PAYMENTS FOR CURRENT AND OPERATING EXPENSES.

	Belonging to Whole Line.	Belonging to Wis- consin.
1. Maintenance of way —		
Iron rails.....	\$1,861 48	
Repairs of track, including new and re-rolled iron rail in place of old iron rail.....	83,255 88	
Repairs of bridges.....	1,175 09	
Repairs of fences.....		
New steel rail, valued only as iron rail*.....		
Other expenses on way.....	1,856 37	
2. Maintenance of buildings.....	584 12	
3. Maintenance of rolling-stock —		
Locomotives.....	2,930 62	
Passenger, baggage, mail and express cars.....	2,726 41	
Freight cars.....	8,187 55	
Shop tools and machinery.....	554 31	
4. Conducting transportation and general expenses —		
Management and general office.....	6,040 24	
Foreign agency and advertising.....		
Agents and station service.....	9,288 29	
Conductors, baggage and brakemen.....	6,818 45	
Engineers, firemen and wipers.....	10,757 90	
Train and station supplies.....	869 26	
Fuel consumed.....	12,298 50	
Oil and waste.....	2,461 50	
Personal expenses.....		
Water service.....	2,698 51	
Damage to persons.....		
Damage to property.....	116 42	
Stock killed.....	1,026 50	
Loss and damage to freight and baggage.....		
Legal expenses.....		
Other general operating expenses as per items be- low.....	3,136 91	
5. Current expenses —		
For taxes.....		
For insurance.....		
Lease or privilege of other roads whose earnings are included in this report, giving name and amounts paid.....		
6. Total current operating expenses, being 60.07 per cent. of earnings.....	108,144 81	
7. Average operating expenses per mile of road, ex- clusive of sidings.....	1,201 60	
8. Average operating expenses per train-mile.....	80 07	
9. Excess of earnings over operating and current ex..	69,763 48	
10. Cost of maintaining track and bridges per mile run	0.25 $\frac{7}{10}$	
11. Cost of repairs of engines per mile run.....	0.02 $\frac{1}{10}$	
12. Cost of engineers and firemen per mile run.....	0.08	
13. Cost of oil and waste per mile run.....	0.01 $\frac{1}{10}$	
14. Cost of fuel per mile run.....	0.09 $\frac{1}{10}$	

* In substituting steel rail for iron rail, the cost of iron rail only should be charged to operating account, and the excess carried to extraordinary expenses. (See next page.)

Expenses, etc. — continued.

PAYMENTS IN ADDITION TO OPERATING EXPENSES.

	Belonging to whole line.	Belonging to Wisconsin.
15. New steel rail, excess of cost over iron rail, old track.....	All in construction account.	.....
16. New rail on new track.....		.....
17. New equipment.....		.....
18. New bridges and culverts (not including replacements) .....		.....
19. Real estate bought during the year.....		.....
20. New tools and machinery.....		.....
21. New buildings.....		.....
22. Total paid for new investment on the length of the company's line since date of last report.....		.....
23. Amounts paid in cash, stock, bonds, or otherwise, for extensions, new lines and branches, during the past year — specify particularly.....		.....
Total new investment .....		.....
24. For interest on bonds. None.....		.....
25. Dividends—rate — per cent. — on preferred stock. None.....		.....
26. Dividends—rate — per cent. on common st ck. None.....		.....
27. Total payments in addition to operating expenses.....		.....
28. What amount of money have you expended for building roads out of the state, from proceeds arising from business done on your roads in this state? None.....		.....
29. How was amount of dividends paid the past year — cash, stock or other- wise? Specify amounts and manner of payment. None.		

Table No. 5.
TRANSPORTATION OF PASSENGERS.
As per Report of 1877.

NAME OF COMPANY.	PASSENGERS CARRIED.		PASSENGERS CARRIED ONE MILE.		AVERAGE MILEAGE OF EACH PASSENGER.		Highest speed of passenger trains.
	Whole Line.	In Wisconsin.	Whole Line.	In Wisconsin.	Whole Line.	In Wisconsin.	
Chicago, Milwaukee & St. Paul.....	1,095,715	679,883	54,952,700	31,718,416	47	43	30
Chicago & Northwestern.....	2,896,692	886,078	103,827,127	19,938,377	35.67	.....	30 1/2
Chippewa Falls & Western.....	35,400	38,400	884,000	884,000	10	10	20
Galena & Southern Wisconsin.....	8,453	5,639	148,456	98,971	17.25	17.25	15
Green Bay & Minnesota.....	55,505	55,505	2,301,267	2,301,267	41.50	41.50	25
Milwaukee, Lake Shore & Western.....	66,265	66,265	2,110,044	2,110,044	31.8	31.8	35
Mineral Point.....	30,338	129,148	606,760	1,682,963	20	20	16
Manison & Portage.....	.....	.....	.....	.....	.....	.....	.....
Pine River & Stevens Point.....	.....	.....	.....	.....	.....	.....	.....
Prairie du Chien & McGregor.....	.....	.....	.....	.....	.....	.....	.....
Sheboygan & Fond du Lac.....	42,713	42,713	682,767	682,767	15.9	15.9	25
Western Union.....	224,166	96,706	6,082,293	2,384,964	27.13	24.46	25
West Wisconsin.....	118,085	.....	7,083,919	6,282,500	59.99	.....	.....
Wisconsin Central.....	152,072	152,072	5,889,367	5,889,367	38.4	38.4	25
Wisconsin Valley.....	85,825	35,825	918,983	918,983	25.7	25.7	25
Totals.....	4,764,233	2,038,233	184,487,683	73,262,619	38.7	35.03	.....

¹ Estimated on basis of mileage.

² Included in report of C., M. & St. Paul R'y Co.

³ Not given.

⁴ No record made.

[Table No. 6.]
TONNAGE OF THE SEVERAL KINDS OF FREIGHT NAMED
As per reports of 1877.

Name of Company	Grain.	Flour.	Provisions.	Salts, cement, wood, lime, etc.	Manufactures, including agrl. implem'ts, furniture and wagons.	Live stock.	Lumber and other pro- ducts of the forest.	Iron and other min- erals.	Stone, brick, sand lime, etc.	Coal.	Merchandise.	Total number tons carried.	Wisconsin.
Chic., Mil. & St. P.	465,798	165,037	33,371	25,630	21,578	60,501	335,260	15,768	30,415	81,287	337,093	1,561,786	703,003
Chicago & N. W.	1,344	1,208	563	238	85	8	20	1,003	106	875	2,485	0,491	.....
Chipp. Falls & W'n.	2,624	1,186	.....	82	.....	1,113	2,184	696	80	.....	793	7,968	.....
Galena & S. Wis.	26,050	2,438	1,285	2,508	1,517	173	45,383	896	5,870	3,450	7,338	94,907	.....
Green Bay & Minn.	20,032	5,076	5,985	949	11,174	487	24,820	8,680	5,013	887	14,803	97,900	.....
Mil., L. S. & W.	21,102	194	696	1,150	566	9,000	6,150	11,656	373	2,874	8,673	63,896	.....
Mineral Point	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Madis'n & Port'ge	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Pine Riv. & S. Pl.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Pr. du C. & McG.	8,966	1,851	1,456	1,114	1,851	259	11,431	240	8,509	2,080	9,003	43,071	.....
Sheb'n & F. du L.	126,271	2,896	8,823	3,988	12,202	21,738	81,049	2,540	0,501	107,874	58,003	435,444	.....
Western Union	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
West Wisconsin	27,163	7,750	12,551	1,814	4,753	3,404	124,273	3,897	0,552	4,170	25,096	221,835	.....
Wisconsin Central	1,501	1,331	878	263	174	105	63,548	80	418	80	6,302	74,044	.....
Wisconsin Valley	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total	700,851	187,917	55,609	87,066	53,900	97,696	604,827	43,865	62,556	304,001	470,588	3,608,003	1,784,556

¹ No record of the classification of commodities.

² Included in report of Chicago, Milwaukee & St. Paul Railway Company.

Table No. 7.
TOTAL EARNINGS
For the year ending September 30, 1877.

NAME OF COMPANY.	PASSENGERS.		FREIGHT.	
	Whole line.	Wisconsin.	Whole line.	Wisconsin.
Chicago, Mil. & St. Paul	\$1,744,988 41	\$987,961 75	\$5,120,094 24	\$3,317,618 80
Chicago & Northwestern	2,890,898 87	681,513 49	8,554,519 92	1,845,853 09
Chippewa Falls & Western	16,831 88	16,851 88	10,436 98	10,436 98
Galena & Southern Wisconsin	5,857 40	3,571 60	12,108 90	8,072 60
Green Bay & Minnesota	86,171 76	86,171 76	217,838 97	217,838 97
Milwaukee Lake Shore & Western	71,828 14	71,828 14	131,278 61	131,278 61
Mineral Point	22,219 98	21,348 08	94,015 45	90,328 56
Madison & Portage	12,016 25	12,016 25	24,310 40	24,310 40
Pine River & Stevens Point	2,145 53	2,145 53	10,869 48	10,869 48
Prairie du Chien & McGregor	3,884 00	2,961 00	40,514 00	35,449 75
Sheboygan and Fond du Lac	34,070 69	34,070 69	59,636 57	59,636 57
Western Union	212,507 65	77,715 77	762,269 60	392,689 41
West Wisconsin	229,005 68	203,697 68	478,947 55	430,301 99
Wisconsin Central	202,207 47	202,207 47	485,305 77	485,305 77
Wisconsin Valley	44,064 89	44,064 89	128,799 58	128,799 58
	\$5,577,668 10	\$2,447,526 08	\$16,130,946 02	\$7,188,790 56

TABLE No. 7—*Total Earnings*—continued.

NAME OF COMPANY.	MAILS, EXPRESS, AND ALL OTHER SOURCES.			TOTALS.	
	Whole line.	Wisconsin.	Whole line.	Wisconsin.	
Chicago, Milwaukee & St. Paul.....	\$407,929 23	\$246,109 37	\$7,272,961 88	\$4,551,689 93	
Chicago & Northwestern.....	576,882 56	150,434 34	12,022,296 35	2,677,800 93	
Chippewa Falls & Western.....	730 62	730 62	28,019 48	28,019 48	
Galena & Southern Wisconsin.....	1,223 32	815 54	18,689 62	6,229 87	
Green Bay and Minnesota.....	26,783 35	26,783 35	330,794 08	330,794 08	
Milwaukee, Lake Shore & Western.....	10,824 09	10,824 09	213,930 84	213,930 84	
Mineral Point.....	5,303 00	5,094 02	121,538 48	116,771 90	
Madison and Portage.....	2,265 79	2,265 79	38,592 44	38,592 44	
Pine River & Stevens Point.....	1,747 05	1,747 05	14,762 06	14,762 06	
Prairie du Chien & McGregor.....	.....	.....	43,898 00	88,410 75	
Sheboygan & Fond du Lac.....	7,537 77	7,537 77	101,245 03	101,245 03	
Western Union.....	42,434 57	12,430 19	1,017,211 82	482,835 37	
West Wisconsin.....	31,883 71	28,402 63	739,836 94	661,802 80	
Wisconsin Central.....	31,229 51	31,229 51	718,742 75	718,742 75	
Wisconsin Valley.....	5,043 82	5,043 82	177,907 79	177,907 79	
	\$1,151,818 39	\$529,448 09	\$22,860,427 56	\$10,159,535 50	

*Included in C., M. & St. Paul.

TABLE No. 8.
TONS CARRIED AND TONS CARRIED ONE MILE.
Showing increase and decrease.

NAME OF COMPANY.	TONS CARRIED.					
	On Whole Line.		In Wisconsin.			
	1876.	1877.	1876.	1877.	Increase.	Decrease.
Chicago, Milwaukee and St. Paul	1,829,311	1,561,736	931,770	793,095	.....	138,675
Chicago and North-Western.	5,099,217	8,446,326	.....	1,104,165	.....	.....
Chippewa Falls and Western.	7,046	6,491	7,046	6,491	.....	555
Galena and Southern Wisconsin.	14,256	7,968	9,504	5,312	.....	4,192
Green Bay and Minnesota.	95,944	96,907	95,944	96,907	.....	.....
Mil., Lake Shore and Western.	66,073	97,900	66,073	97,900	.....	.....
Mineral Point.	59,859	63,396	57,487	60,907	.....	.....
Madison and Portage. ....	.....	.....	.....	.....	.....	.....
Pine River Valley & Stevens Point.	.....	.....	.....	.....	.....	.....
Prairie du Chien and McGregor.	.....	.....	.....	.....	.....	.....
Sheboygan and Fond du Lac.	78,554	42,671	78,554	42,671	.....	35,883
Western Union.	456,855	435,444	.....	317,973	.....	.....
West Wisconsin. ....	.....	.....	.....	.....	.....	.....
Wisconsin Central.	215,464	221,835	215,464	221,835	.....	.....
Wisconsin Valley.	66,237	74,644	66,237	74,644	.....	.....
Total.	7,988,818	6,055,518	1,528,078	2,881,900	1,473,127	179,805

¹ Included in report of U. M. and St. Paul R'y Co.

² Not reported.

TABLE No. 8 — *Showing increase and decrease of tons carried.*— continued.

NAME OF COMPANY.	TONS CARRIED ONE MILE.					
	On Whole Line.		In Wisconsin.			
	1876.	1877.	1874.	1877.	Increase.	Decrease.
Chicago, Mil., and St. Paul....	284,799,153	242,845,103	187,181,974	155,612,548	.....	91,569,498
Chicago and North-Western....	474,899,761	480,502,478	.....	108,875,885	.....	.....
Chippewa Falls and Western ..	70,460	64,910	70,460	64,910	.....	5,550
Galea and Southern Wisconsin	.....	.....	.....	.....	.....	.....
Green Bay and Minnesota ..	10,060,530	11,884,301	10,060,530	11,884,301	1,773,771	.....
Mil., Lake Shore and Western ..	3,695,341	6,086,488	3,695,341	6,086,488	2,341,142	.....
Mineral Point	1,975,347	Not reported	1,611,883	Not reported	.....	1,611,883
Madison and Portage .....	.....	.....	.....	.....	.....	.....
Pine Riv. Valley & Stevens Pl.	.....	.....	.....	.....	.....	.....
Prairie du Chien & McGregor	.....	.....	.....	.....	.....	.....
Sheboygan and Fond du Lac ..	8,143,160	3,371,009	8,143,160	3,371,009	228,849	.....
Western Union	47,792,319	48,522,180	19,116,928	22,005,150	2,888,228	.....
West Wisconsin	26,096,130	23,614,475	26,096,130	23,614,475	.....	2,481,655
Wisconsin Central	21,647,694	23,984,236	21,647,694	23,984,236	1,336,543	.....
Wisconsin Valley	5,261,208	5,205,885	5,261,208	5,205,885	.....	55,868
Total.....	878,940,098	839,980,400	277,884,303	359,103,838	116,943,917	35,724,388

¹ Included in report of C., M. and St. Paul Ry Co.² Not reported.

Table No. 9.
TRAIN MILEAGE.
Showing Increase and Decrease.

NAME OF COMPANY.	PASSENGER TRAIN MILES.			FREIGHT AND MIXED TRAIN MILEAGE.		
	1876.	1877.	Increase. Decrease.	1876.	1877.	Increase. Decrease.
Chicago, Mil. & St. Paul ..	1,155,239	1,180,616	25,377	3,377,884	3,042,033	335,851
Chicago & Northwestern...	2,478,433	2,424,817	53,616	6,405,668	6,659,782	254,114
Chippewa Falls & Western.	12,896	12,896		6,448	6,448	
Galeua & Southern Wis.					18,000	18,000
Green Bay & Minnesota ..	132,074	132,596	522	112,160	148,384	36,724
Mil., Lake Shore & Western	46,533	87,185	40,652	93,471	140,096	46,625
Mineral Point				69,264	70,112	848
Madison & Portage.....	117		117	25,111	25,621	510
Pine R. Val. & Stevens Pt.						
Prairie du C. & McGregor.	63,882	54,634	9,248	59,692	60,025	333
Sheboygan & Fond du Lac.	282,957	289,586	6,629	455,482	523,163	67,681
Western Union ..	229,832	216,063	13,769	285,493	240,202	45,290
West Wisconsin ..	276,884	331,167	54,283	360,072	416,133	56,061
Wisconsin Central ..	59,470	56,940	3,130	79,351	64,100	15,251
Wisconsin Valley.....						
Totals.....	4,738,317	4,805,900	147,463	11,330,095	11,415,199	85,104
Net increase			67,583			396,392

TABLE No. 9. — *Train Mileage* — continued.

NAME OF COMPANY.	PASSENGER AND FREIGHT (AND MINED) TRAIN MILEAGE.				Construction and Service Train, Mileage.	
	1876.	1877.	Increase.	Decrease.	1876.	1877.
Chicago, Milwaukee & St. Paul.....	4,533,123	4,323,649	.....	310,474	.....	.....
Chicago & Northwestern.....	8,884,101	9,084,509	200,408	.....	.....	.....
Chippewa Falls & Western.....	19,344	19,844	.....	.....	.....	.....
Galena & Southern Wisconsin.....	.....	18,000	18,000	.....	.....	.....
Green Bay & Minnesota.....	244,234	301,480	57,246	.....	.....	.....
Milwaukee, Lake Shore & Western.....	140,004	237,281	87,277	.....	.....	.....
Mineral Point.....	69,264	70,113	848	.....	.....	.....
Madison & Portage.....	25,233	25,631	398	.....	.....	.....
Pine River Valley & Stevens Point.....	.....	.....	.....	.....	.....	.....
Prairie du Chien & McGregor.....	.....	.....	.....	.....	.....	.....
Sheboygan & Fond du Lac.....	128,574	115,259	.....	8,315	.....	.....
Western Union.....	798,439	812,749	74,310	.....	.....	.....
West Wisconsin.....	515,324	456,265	.....	59,059	.....	.....
Wisconsin Central.....	686,856	747,300	110,844	.....	.....	.....
Wisconsin Valley.....	188,931	120,440	.....	18,881	.....	.....
Totals.....	16,068,412	16,221,099	548,916	306,229	.....	.....
Net increase.....	.....	.....	152,087	.....	.....	.....

Table No. 10.
COMPARATIVE STATEMENT SHOWING PASSENGERS CARRIED AND PASSENGERS CARRIED
ONE MILE.
With Increase or Decrease in the year ending September 30, 1877.

NAME OF COMPANY.	NUMBER OF PASSENGERS CARRIED.							
	On Whole Line.		In Wisconsin.		Whole Line.		Wisconsin.	
	1876.	1877.	1876.	1877.	Increase.	Decrease.	Increase.	Decrease.
Chicago, Milwaukee & St. Paul.....	1,164,484	1,095,715	791,564	679,883	.....	08,709	.....	111,681
Chicago & Northwestern.....	3,275,377	2,896,692	977,846	896,078	.....	878,685	.....	91,768
Chippewa Falls & Western.....	40,640	38,400	40,640	38,400	.....	2,240	.....	2,240
Galea & Southern Wisconsin.....	.....	8,458	.....	5,639	8,458	.....	5,639	.....
Green Bay & Minnesota.....	56,306	55,505	56,306	55,505	.....	801	.....	901
Milwaukee Lake Shore & Western..	53,220	60,265½	53,220	66,265½	13,045½	.....	13,045½	.....
Mineral Point.....	28,826	30,338	27,673	29,148	1,812	.....	1,475	.....
Madison and Portage.....	.....	.....	.....	.....	.....	.....	.....	.....
Pine River Valley & Stevens Point	.....	.....	.....	.....	.....	.....	.....	.....
Prairie du Chien & McGregor.....	45,558	42,712	45,558	42,712	.....	2,846	.....	2,846
Sheboygan & Fond du Lac.....	253,447	224,166	.....	96,706	.....	29,281	96,706	.....
Western Union.....	126,180	118,083	.....	.....	.....	8,065	.....	.....
West Wisconsin.....	197,135	152,072½	167,135	152,072½	.....	15,062½	.....	15,062½
Wisconsin Central.....	37,013	35,825	37,013	35,825	.....	1,188	.....	1,188
Wisconsin Valley.....	.....	.....	.....	.....	.....	.....	.....	.....
Total	5,248,186	4,704,234	2,196,955	2,088,234	23,015½	506,967½	116,865½	225,586½

½ Nothing reported.

TABLE No. 10. — *Comparative Statement showing Passengers Carried, etc. — continued.*

NAME OF COMPANY.	NUMBER OF PASSENGERS CARRIED ONE MILE.							
	On Whole Line.		In Wisconsin.		Whole Line.		In Wisconsin.	
	1876.	1877.	1876.	1877.	Increase.	Decrease.	Increase.	Decrease.
Chicago, Mil. & St. Paul.....	60,117,771	54,952,700	37,030,344	31,718,416	.....	5,165,071	.....	5,811,928
Chicago & Northwestern.....	113,482,146	103,327,127	.....	19,928,377	.....	10,155,019	19,928,377	.....
Chippewa Falls & Western ..	406,400	384,000	406,400	384,000	.....	22,400	.....	22,400
Galena & Southern Wisconsin	.....	148,456	.....	98,971	148,456	.....	98,971	.....
Green Bay & Minnesota.....	2,087,250	2,301,267	2,087,250	2,301,267	214,017	.....	214,017	.....
Mil., Lake Shore & Western..	1,542,759	2,110,044	1,542,759	2,110,044	567,285	.....	567,285	.....
Mineral Point.....	576,520	606,760	553,459	582,963	80,240	.....	29,504	.....
Madison & Portage.....	.....	.....	.....	.....	.....	.....	.....	.....
Pine Riv. V. & Stevens Point	.....	.....	.....	.....	.....	.....	.....	.....
Prairie du Ci. & McGregor ¹	.....	.....	.....	.....	.....	.....	.....	.....
Sheboygan & Fond du Lac...	761,370	682,767	761,370	682,767	.....	78,603	.....	78,603
Western Union.....	6,433,819	6,082,293	.....	2,304,964	.....	351,526	2,304,964	.....
West Wisconsin.....	6,085,661	7,083,919	.....	6,292,500	998,258	.....	6,282,500	.....
Wisconsin Central.....	5,960,953	5,889,367	5,960,953	5,889,367	.....	71,585	.....	71,585
Wisconsin Valley.....	992,958	918,983	992,958	918,983	.....	73,975	.....	73,975
Total.....	198,447,696	184,487,683	49,335,492	73,262,619	1,938,256	5,918,179	29,485,618	5,558,491

¹ Nothing reported.

Table No. 11.
PASSENGER EARNINGS,
For the year ending September 30, 1877.

NAME OF COMPANY.	TOTAL PASSENGER EARNINGS.		PASSENGER EARNINGS PER MILE OF ROAD.		PASSENGER EARNINGS PER TRAIN MILE.	
	Whole Line.	In Wisconsin.	Whole Line.	In Wisconsin.	Whole Line.	In Wisconsin.
Chicago, Milwaukee and St. Paul.....	\$1,744,938 41	\$987,961 75	\$1,246 38	\$1,485 66	\$1 45	1 45
Chicago & Northwestern.....	2,890,893 87	681,513 49	1,898 12	1,352 84	1 19	1 19
Chippewa Falls and Western.....	16,851 88	16,851 88	1,630 82	1,630 82	1 31	1 31
Galena & Southern Wisconsin.....	5,357 40	3,671 60	178 58	119 05	29 ¹ / ₁₀	29 ¹ / ₁₀
Green Bay & Minnesota.....	86,171 76	86,171 76	853 75	358 75	56 ⁴ / ₁₀	56 ⁴ / ₁₀
Milwaukee, Lake Shore & Western.....	71,828 14	71,828 14	489 68	489 68	24 ¹ / ₁₀	24 ¹ / ₁₀
Mineral Point.....	22,219 98	21,348 68	435 68	435 68	37	37
Madison & Portage.....	12,016 25	12,016 25	308 11	308 11	1 43	1 43
Pine River Valley & Stevens Point.....	2,145 53	2,145 53	134 09	134 09	.....	.....
Prairie du Chien and McGregor.....	3,384 00	2,961 00	1,692 00	1,692 00	.....	.....
Sheboygan & Fond du Lac.....	34,070 69	34,070 69	431 28	431 28	62 ¹ / ₂	62 ¹ / ₂
Western Union.....	212,507 65	77,715 77	998 86	959 50	73	73
West Wisconsin.....	229,005 68	203,097 64	1,138 19	1,138 19	1 20	1 20
Wisconsin Central.....	202,207 47	202,207 47	449 85	449 85	61	61
Wisconsin Valley.....	44,064 39	44,064 39	545 65	545 65	87 ¹ / ₁₀	87 ¹ / ₁₀
Totals.....	\$5,577,663 10	\$2,447,526 08	\$11,920 99	\$11,525 60	.....	.....

1 Estimated.

Table No. 12.
PASSENGER EARNINGS. PASSENGERS CARRIED ONE MILE AND RATE PER PASSENGER PER MILE ON WHOLE LINE AND IN WISCONSIN.

NAME OF COMPANY.	No. passengers carried one mile on whole line.	Total No. carried one mile in Wisconsin.	Amount of passenger earnings on whole line.	Passenger earnings in Wisconsin.	Rate per mile.		Miles of road.	
					Whole Line.	Wisconsin.	Whole Line.	Wisconsin.
Chicago, Mil. & St. Paul.....	54,952,700	31,718,416	1,744,988 41	987,961 75	\$ 3.175	\$ 3.114	1,420	685
Chicago & North Western.....	103,827,127	19,928,377	2,890,893 87	681,513 49	2.797	3.42	1,993.25	566.58
Chippewa Falls & Western.....	384,000	884,900	16,851 88	16,851 88	4.388	4.388	10.33	10 33
Galena & Southern Wisconsin.	148,456	198,971	5,357 40	13,571 60	3.609	3.609	31	20
Green Bay & Minnesota.....	2,801,267	2,801,267	86,171 70	86,171 70	3.744	3.744	243.60	243.60
Mil. Lake Shore & West'n....	2,110,044	2,110,044	71,828 14	71,828 14	3.441	3.441	146.70	146.70
Mineral Point.....	606,760	532,963	22,219 95	21,348 68	3.662	3.662	51	49
Madison & Portage.....	.....	.....	12,016 25	12,016 25	.....	.....	39	39
Pine River Valley & Stev'n Pt. ¹	.....	.....	2,145 53	2,145 53	.....	.....	16	16
Prairie du Chien & McGregor ²	.....	.....	3,384 00	2,961 00	.....	.....	2	1.75
Sheboygan & Fond du Lac....	682,767	682,767	34,070 69	34,070 69	4.4	4.4	79	79
Western Union.....	0,083,208	2,364,964	212,507 65	77,715 77	3.493	3.286	212.75	85.20
West Wisconsin.....	7,083,919	16,283,500	229,005 68	203,097 68	3.232	3.232	201.20	177.50
Wisconsin Central.....	5,889,867	5,889,867	202,207 47	202,207 47	3.433	3.433	449.50	449.50
Wisconsin Valley.....	918,983	918,983	44,064 39	44,064 39	4.795	4.795	89.90	89.90
	184,437,683	73,292,619	\$5,577,663 10	\$2,447,526 08	\$ 3.02	\$ 3.33	4,985.26	2,659.06

¹ Estimated.² Included in report of C. M. & St. Paul R'y Co.³ No report.⁴ Nearly.

Table No. 13.
PASSENGER EARNINGS FOR WHOLE ROAD AND PER MILE OF ROAD.

NAME OF COMPANY.	PASSENGER EARNINGS.				IN WISCONSIN.		PASSENGER EARNINGS PER MILE OF ROAD IN WISCONSIN.			
	On Whole Line.		In Wisconsin.		Increase.	*Decrease.	1876.	1877.	†Increase.	Decrease.
	1876.	1877.	1876.	1877.						
C. M. & St. P.	\$1,304,102 33	\$1,744,988 41	\$1,104,274 83	\$987,061 75	.....	\$110,313 08	\$1,660 50	\$1,485 60	.....	174 90
C. & N. W.	3,167,286 71	2,890,898 87	731,135 68	681,513 49	.....	49,623 19	1,539 40	1,202 85	.....	336 55
Chippewa Falls & W.	19,470 03	16,851 88	19,470 03	16,851 88	.....	2,618 15	1,894 19	1,030 82	.....	253 37
Gal. & So. Wis.	5,503 39	5,357 40	3,668 92	3,571 60	.....	97 32	177 52	119 05	.....	58 47
G. B. & Minn.	81,979 55	86,171 76	81,979 55	80,171 76	\$4,192 21	.....	383 09	353 75	.....	29 38
M. L. S. & W'n.	54,131 88	71,828 14	54,131 88	71,828 14	17,696 76	.....	430 98	489 63	\$58 65	.....
Mineral Point..	23,332 74	22,219 98	22,417 50	21,348 68	.....	1,068 82	463 40	435 68	.....	27 72
Madison & Port.	12,522 46	12,016 25	12,522 46	12,016 25	.....	506 21	321 09	308 11	.....	12 93
Pine R. V. & S. P.	.....	2,145 53	.....	2,145 53	2,145 43	.....	.....	134 09	134 09	.....
P. du C. & McG.	.....	3,384 00	.....	2,961 00	2,961 00	.....	.....	1,692 00	1,692 00	.....
Sheb. & F. du L.	40,742 80	34,070 69	40,742 80	34,070 69	.....	6,672 11	512 31	431 28	.....	81 03
Western Union.	237,004 10	212,607 65	90,908 40	77,715 77	.....	13,192 63	1,067 00	938 50	.....	107 50
West Wisconsin	257,598 95	229,005 65	231,048 91	203,097 68	.....	28,551 23	1,200 79	1,138 19	.....	62 60
Wisconsin Cent.	208,340 88	202,207 47	208,340 88	202,207 47	.....	6,132 91	586 87	440 95	.....	137 02
Wisconsin Val..	49,382 73	44,064 36	49,382 73	44,064 39	.....	5,318 34	556 75	545 65	.....	11 10
	\$6,041,397 55	\$5,577,663 10	\$2,050,623 57	\$2,447,536 08	\$26,995 50	\$230,092 99	\$10,783 94	\$11,376 11	\$1,884 74	\$1,292 57

* Net Decrease, \$203,097.49.

Net Increase, \$592.17.

Table No. 14.

FREIGHT EARNINGS.

For the year ending September 30, 1877.

NAME OF COMPANY.	TOTAL FREIGHT EARNINGS.		FREIGHT EARNINGS PER MILE OF ROAD.		FREIGHT EARNINGS PER TRAIN MILE.	
	Whole Line.	In Wisconsin.	Whole Line.	In Wisconsin.	Whole Line.	In Wisconsin.
Chicago, Milwaukee & St. Paul.....	\$5,120,094 24	\$3,317,618 80	\$3,605 70	\$4,988 90	\$1 68	1 80
Chicago & Northwestern	8,554,519 92	1,845,853 09	5,587 17	508 95	1 28	.....
Chippewa Falls & Western	10,436 98	10,436 98	1,010 80	1,010 80	1 62	1 62
Galena & Southern Wisconsin	12,108 90	8,072 00	403 63	403 63	61 7	61 7
Green Bay & Minnesota	217,888 97	217,838 97	885 21	885 21	1 46 3	1 46 3
Milwaukee, Lake Shore & Western.....	131,278 61	131,278 61	894 87	894 87	43 04	43 04
Mineral Point	94,015 45	90,828 56	1,843 44	1,843 44	1 29	1 29
Madison & Portage	24,310 40	24,310 40	628 34	628 34	1 41	1 41
Pine River & Stevens Point	10,869 48	10,869 48	679 34	679 34	.....	.....
Prairie du Chien & McGregor	40,514 00	35,449 75	20,257 00	17,724 87	.....	.....
Sheboygan & Fond du Lac	59,636 57	59,636 57	754 89	754 89	98	98
Western Union.....	763,269 60	392,689 41	8,593 94	8,593 94	1 46	1 46
West Wisconsin	478,947 55	430,301 09	2,380 45	2,380 45	1 38	1 38
Wisconsin Central.....	485,305 77	485,305 77	1,079 66	1,079 66	1 16 6	1 16 6
Wisconsin Valley	128,799 58	128,799 58	1,431 10	1,431 10	2 04	2 04
Totals.....	\$16,130,946 02	\$7,188,790 56	\$45,019 04	\$38,282 94	.....	.....

Table No. 15,
OPERATING AND CURRENT EXPENSES COMPARED WITH EARNINGS.

NAME OF COMPANY.	GROSS EARNINGS.		TOTAL OPERATING EXPENSES.		INTEREST PAID ON BONDS.		EXCESS OF EARNINGS OVER OPERATING AND CURRENT EXPENSES.	
	Whole line.	In Wisconsin.	Whole line.	In Wisconsin.	Whole line.	In Wisconsin.	Whole line.	In Wisconsin.
Chicago, Mill & St. Paul...	\$7,272,961 88	\$4,551,680 92	\$4,445,791 01	\$2,684,737 42	\$2,161,992 84	\$1,027,630 68	.....	.....
Chicago & Northwestern...	12,022,296 35	2,677,800 92	6,357,926 07	3,092,562 45	2,386,486 89	785,493 97	.....	.....
Chippewa Falls & Western.	28,019 48	28,019 48	14,285 00	14,285 00	10,087 00	10,087 00	.....	.....
Galena & Southern Wisconsin	18,689 62	12,459 75	12,523 04	8,848 03	.....	.....	.....	.....
Green Bay & Minnesota...	330,794 08	330,794 08	297,723 37	297,723 37	176,230 19	176,230 19	.....	.....
Mil. L. S. & Western.....	213,930 84	213,930 84	163,507 34	163,507 34	83,145 00	83,145 00	.....	.....
Mineral Point.....	121,538 48	110,771 90	83,902 20	80,611 90	32,000 00	30,745 09	.....	.....
Madison & Portage.....	38,593 44	38,592 44	33,546 69	33,546 69	.....	.....	.....	.....
Pine River & Stevens Point	14,762 06	14,762 06	14,192 10	14,192 10	.....	.....	.....	.....
Prairie du Chien & McG'r	43,898 00	38,410 75	34,449 20	30,143 05	.....	.....	.....	.....
Sheboygan & Fond du Lac.	101,245 03	101,245 03	80,861 60	80,861 60	.....	.....	.....	.....
Western Union.....	1,017,211 82	492,835 37	687,795 81	285,149 12	245,805 00	98,322 00	.....	.....
West Wisconsin.....	739,836 04	681,802 30	607,530 99	535,967 04	.....	.....	.....	.....
Wisconsin Central.....	718,743 75	718,743 75	463,973 32	463,973 32	.....	.....	.....	.....
Wisconsin Valley.....	177,907 79	177,907 79	108,144 31	108,144 31	.....	.....	.....	.....
	\$22,860,427 50	\$10,165,705 38	\$13,406,141 05	\$6,898,843 24	\$5,045,752 42	\$2,161,709 91	.....	.....

Table No. 16.
AUGUST 1912.

[illegible]

INDEX.

A.

	Page.
Accidents, report of, see table No. 16.....	305
Accidents, remarks of commissioner concerning.....	15, 16
Accidents, increase of and who injured.....	17
Accidents, exemption of on passenger trains.....	17
Aggregate capital stock of all companies in the state.....	5
Annual report of commissioner, recommendation concerning.....	16
Appendix	20, 29
Average earnings per mile of road	10
Average amount of stock per mile	5
Average rate of passengers per mile, in and out of state	7, 8

B.

Bridges, remarks concerning and inspection of.....	18, 14, 15
Bridges, circular to companies.....	14
Bridges, correspondence concerning	14
Bridges, replies of companies.....	20, 23
Bridges on West Wis. R'y, order of court, etc.....	24—29

C.

Capital stock reported...	9
Cars, railroad companies to furnish.....	83
Chicago, Mil. and St. Paul Railway, report of	41, 60
Chicago and Northwestern Railway, report of.....	61, 83
Chippewa Falls and Western Railway, report of.....	84, 98
Circular relative to bridges.....	14
Classified reports of companies	41, 279
Complaints	10
Connections at junctions	19
Condition of roads.....	18, 19
Corporations reporting.....	9
Cost of roads and equipment.....	9

D.

	Page.
Debts, funded and unfunded	9
Difficulties in making correct estimates and reports	12
Discrimination prohibited	33
Discrepancy in reports in regard to mileage	11
Duties of railroad commissioner	30
Duties of railroad companies in regard to reports	31

E.

Earnings from passengers	10, 11
Earnings from mails, express, etc.	10
Earnings from passengers, per mile	11
Earnings from freight, per mile	10
Earnings on all lines in the state	10
Exemption of license fees	35
Expenses of railroad commission	18
Expenses compared with earnings (see table No. 15) ..	305

F.

Freight earnings	10
Freight, total tonnage	12
Freight, tons carried one mile	12
Fond du Lac, Amboy & Peoria Railway Co.	8, 9
Funded and unfunded debt	9

G.

Galena & Southern Wisconsin Railroad, report of	99, 113
General railroad law	30-36
Gross earnings, passengers and freight	10
General instructions to companies	38

I

Increase of road during the year	8
Injured passengers	15
Injured employees	15
Injured, others	15
Improved condition of roads	19
Inspection of roads	12
Interest and rentals	10

J.

	Page.
Junction connections.....	19

K.

Killed, passengers, employees and others.....	15
---	----

L.

Laws concerning reports.....	39
Laws relating to railroads.....	30, 36
Letters from companies relating to bridges.....	20, 23
Letter of W. H. Ferry to commissioner.....	24

M.

Madison & Portage Railroad, report of.....	160-174
Mileage of roads, see Table No. 1.....	280-283
Mileage of trains.....	11
Milwaukee, Lake Shore & Western Railroad, report of.....	129-144
Mineral Point Railroad, report of.....	145-159

N.

Narrow gauge railroad.....	8
----------------------------	---

O.

Official correspondence.....	14, 21, 22, 23
Operating expenses.....	12
Order of court, bridges on West Wisconsin Railway.....	25

P.

Passengers carried on whole line and in Wisconsin.....	11
Passengers carried one mile on whole line and in Wisconsin.....	11
Passenger earnings, whole line and per mile.....	11
Passengers killed.....	15
Pine River Valley & Stevens Point Railroad, report of.....	175-188
Prairie du Chien & McGregor Railroad, report of.....	189-202
Powers of Railroad Commissioner.....	32

Z.

	Page
Zachary, 'Amalgamation' before of	24
Zachary, 'Amalgamation' before of	24
Zachary, 'Amalgamation' before of	24
Zachary, 'Amalgamation' before of	24
Zachary, 'Amalgamation' before of	24
Zachary, 'Amalgamation' before of	24
Zachary, 'Amalgamation' before of	24
Zachary, 'Amalgamation' before of	24
Zachary, 'Amalgamation' before of	24
Zachary, 'Amalgamation' before of	24

Z.

Zachary, 'Amalgamation' before of	24
Zachary, 'Amalgamation' before of	24
Zachary, 'Amalgamation' before of	24
Zachary, 'Amalgamation' before of	24
Zachary, 'Amalgamation' before of	24
Zachary, 'Amalgamation' before of	24
Zachary, 'Amalgamation' before of	24
Zachary, 'Amalgamation' before of	24
Zachary, 'Amalgamation' before of	24
Zachary, 'Amalgamation' before of	24

T.

Tammy, 'Amalgamation' before of	24
Tammy, 'Amalgamation' before of	24

W.

Western Union Railroad, report of	218, 223
West Wisconsin Railway, report of	234, 243
Wisconsin Central Railroad, report of	249, 263
Wisconsin Valley Railroad, report of	264, 270

ANNUAL REPORT
OF THE
SUPERINTENDENT
OF
PUBLIC INSTRUCTION.

OF THE
STATE OF WISCONSIN,

FOR THE

School Year ending August 31, 1877.

EDWARD SEARING,
Superintendent of Public Instruction.

MADISON, WIS.:
DAVID ATWOOD, PRINTER AND STEREOTYPED.
1878.

**OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION,
MADISON, December 10, 1877.**

*To His Excellency, HARRISON LUDINGTON,
Governor of Wisconsin:*

SIR — I have the honor to submit, through you, to the Legislature, the Annual Report of the Department of Public Instruction, for the year ending August 31, 1877.

I am, sir, very respectfully,

Your obedient servant,

**EDWARD SEARING,
*Superintendent of Public Instruction.***

CONTENTS.

REPORTS —

REPORT OF STATE SUPERINTENDENT	1-lxvii
Statistics and Comments	1
Purchase of Dictionaries	10
Examination for State Certificates	13
The Text-Book Problem Solved	15
High Schools	xliz
School Savings Banks	liv
Defects in the State System	lix
Educational Qualification for Suffrage	lxlii
Conclusion	lxvi

REPORTS OF COUNTY SUPERINTENDENTS	49-106
---	--------

REPORTS OF CITY SUPERINTENDENTS	107-113
---------------------------------------	---------

STATE UNIVERSITY —

Report of Board of Regents	114
Lewis Medal Fund	121
The Johnson Endowment	121
Science Hall and Magnetic Observatory	123
Report of President	126
Report of Board of Visitors	131
The Board of Regents	140

NORMAL SCHOOLS —

Report of President of Board of Regents	141
Report of President of Platteville Normal School	160
Report of President of White water Normal School	167
Report of President of Oshkosh Normal School	173
Report of President of River Falls Normal School	186
Reports of Examining Committees of Normal Schools	189
Report of the Committee on Institutes	199

EDUCATIONAL MEETINGS —

State Teachers' Association — Semi-Annual Session	203
State Teachers' Association — Annual Session	211
Principals' Meeting	224
Convention of School Superintendents	228

REPORTS OF CHARITABLE INSTITUTIONS—

Industrial School for Boys.....	233
Institute for Blind	235
Institution for Deaf and Dumb	237
State Examination of Teachers.....	240
REPORTS OF UNIVERSITIES AND COLLEGES	253
REPORTS OF ACADEMIES AND SEMINARIES.....	261

STATISTICS—

STATISTICS BY COUNTIES..	264
STATISTICS BY CITIES	302
SUMMARIES OF STATISTICS	319
STATISTICS OF FREE HIGH SCHOOLS	321
DISTRIBUTION OF DICTIONARIES.....	324
SALE OF DICTIONARIES	326
LIST OF COUNTY AND CITY SUPERINTENDENTS	328-330

ANNUAL REPORT
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1878.

same as last year—27; but Stevens Point is added to the list, while Oconomowoc now reports to the county superintendent.

In various ways, especially in the decrease of expenditures for their support, the returns show that the schools have been affected by the general business depression of the country. Yet, on the whole, the year has been one of advancement.

I. SCHOOL DISTRICTS.

The number of regular districts is 4,566, an increase of 70 during the last year; the number of joint districts (by the usual estimate) is 998, a decrease of 11. The whole number of districts therefore is 5,564, a net increase of 59. This statement does not include the independent cities, each of which, with one or two exceptions, forms one district for school purposes, under one board.

II. CHILDREN OVER FOUR AND UNDER TWENTY YEARS OF AGE.

The number returned is 478,388, an increase over last year of 3,577. The returns are probably defective, as the increase must be greater than the number given.

III. NUMBER OF CHILDREN OF SCHOOL AGE IN THOSE DISTRICTS WHICH MAINTAINED SCHOOL FIVE OR MORE MONTHS.

The whole number returned is 474,959, being 6,820 more than the number returned at the date of the report for 1876. A larger proportionate number of districts than usual appear to have maintained five months school the past year, notwithstanding the general depression in business matters.

IV. NUMBER OF PERSONS ATTENDING THE PUBLIC SCHOOLS.

The whole number between four and twenty years of age who attended the public schools some part of the year was 289,125; under four years of age, 523, none of this class being reported for the independent cities; over 20, 1,622, of whom 56 only are reported for the cities. Total number attending, 291,270.

Tabulating all classes of pupils attending public or private schools, the returns and estimates for 1876 and 1877 are as follows:

DESCRIPTION.	1876.	1877.
The number reported as attending public schools	282,186	291,270
The number reported as attending private schools only..	24,028	23,624
The number reported as attending colleges and academies.....	1,853	1,699
The number (by estimate) instructed in benevolent institutions	1,160	1,175
Totals	309,227	317,768

The returns or estimates for the cities of the number of children who have attended private schools only, are more complete than usual, and probably approximate nearer to accuracy; but the returns fall short of the real aggregate, it is presumed, by not less than two or three thousand, several cities not reporting the items.

V. TEACHERS AND TEACHERS' WAGES.

The whole number of teachers required in the public schools, is 6,571, or 149 more than last year. The whole number employed was 9,858, or 1,228 more than last year. More than one-third of the schools changed teachers, in the course of the year, which indicates a good deal of competition, and accounts in part for reduction of wages. A larger proportion of female teachers have been employed than usual.

The average wages of male teachers, not including the independent cities, was \$40.48 per month—a decrease of \$1.57. For female teachers, the average was \$26.35—a decrease of 81 cents.

In the independent cities, the average for male teachers was \$1,082 per annum—an increase of \$31; for female teachers, \$359.30—a decrease of \$13.47. Reckoning the school year in those cities at ten months, the average monthly wages of male teachers was \$108.20—an increase of \$3.10; of female teachers, \$35.93—a decrease of \$1.24.

VI. TEACHERS' CERTIFICATES.

The whole number issued, not including state certificates, was 9,376, or 742 more than last year. Of these 8,201 were third grade

certificates, being 549 more of this grade than last year. This indicates the employment of an increased number of teachers of inferior qualifications. The following table gives a synopsis of certificates issued to teachers of both sexes, except for the city of Milwaukee, the returns for which do not classify as to sex:

TEACHERS.	1st Grade.	2d Grade.	3d Grade.	Total.
To male teachers	156	347	2,572	3,075
To female teachers	85	440	5,689	6,214
In Milwaukee				87
Totals :	241	787	8,261	9,876

VII. GRADED SCHOOLS.

The number of schools with two departments is 194 — an increase of 11. Of these 33 are in the independent cities and 161 in the other cities, in villages, and in large country districts. The number of schools with three or more departments is 211 — an increase of 9. Of these 87 are in the independent cities and 124 elsewhere.

VIII. FREE HIGH SCHOOLS.

Twenty such schools were reported in 1876, as established under the original law of 1875. Two more have been established and reported, and 35 reported under the amendment to the law passed last winter, making 57 in all; which number received aid, absorbing the entire appropriation of \$25,000.

IX. SCHOOL HOUSES.

The number reported is 5,320 — an increase of 21. Deducting 161, the number reported for the independent cities, the remaining number is 566 less than the number of school districts — 5,564. The discrepancy is to be accounted for in some degree by the fact that some districts own no school house; but principally on the supposition of imperfect returns. The school houses will accommodate 345,944 pupils. The total attendance was 291,270, showing that the school houses are by no means generally crowded.

X. SUMMARY OF GENERAL STATISTICS.

In the first of the two following tables the increase or decrease from 1876 to 1877 is given, decrease being indicated by an asterisk (*):

DESCRIPTION.	1876.	1877.	Increase or decrease.
Number of school districts, not including independent cities	5,505	5,564	59
Number which reported	5,461	5,533	72
Number of children over 4 and under 20 years of age in the state.....	474,811	478,888	3,577
Number of children over 4 and under 20 years of age in districts maintaining school five or more months.....	468,139	474,959	6,820
Number of children over 4 and under 20 years of age who have attended school	290,153	289,125	8,972
Total number of different pupils who have attended the public schools during the year	282,186	291,270	9,084
Average number of days a school was maintained in the counties during the year.....	152½	149	*3½
Average number of days a school was maintained in the independent cities during the year.....	193	198	.....
Number of days attendance of pupils over 4 and under 20 years of age during the year	28,112,296	20,854,412	*2,757,884
Total number of days attendance of different pupils during the year.....	28,182,911	20,481,557	*2,751,354
Number of days schools have been taught by qualified teachers during the year.	846,801	834,630	*12,171
Number of pupils who have attended private schools only during the year.	24,028	23,624	*404
Number of schools with two departments only	188	194	11
Number of schools with three or more departments	202	211	9
Number of teachers required to teach the schools	6,422	6,571	149
Number of different persons employed as teachers during the year.....	8,630	9,858	1,228
Average monthly wages of male teachers in the counties	\$42.95	\$40.48	*\$2.47
Average monthly wages of female teachers in the counties	\$27.16	\$26.85	*\$0.81
Average monthly wages of male teachers in the cities	\$105.10	\$108.20	\$3.10
Average monthly wages of female teachers in the cities	\$37.20	\$35.98	\$1.27
Number of schools visited by the county superintendents during the year	4,480	4,554	124
Number of public school houses in the state	5,299	5,320	21
Number of pupils the school houses will accommodate.....	837,069	845,944	8,905

Summary of General Statistics — continued.

DESCRIPTION.	1876.	1877.	Increase or decrease.
Number of districts which purchase text-books	267	453	186
Number which loan them to the pupils.	137	244	107
Number which sell them to the pupils .	72	170	98
Number of sites containing less than one acre.....	3,735	3,763	27
Number of sites well enclosed	1,701	1,787	86
Number of school houses built of brick or stone	750	790	40
Number of school houses with outhouses in good condition.....	3,543	3,670	127
Highest valuation of school house and site in the independent cities.....	\$50,000	\$54,500	\$4,500
Highest valuation of school house and site out of the independent cities	\$45,000	\$40,000	*\$5,000

XI. — RECEIPTS AND EXPENDITURES.

The total receipts and expenditures during the last school year are reported as follows:

RECEIPTS.		
Amount on hand August 31, 1876.....		\$461,931 71
Received from taxes levied for building and repr'g		207,990 94
teachers' wages.....		989,789 40
apparatus and library.....		15,844 15
at annual meeting.....		422,701 45
by county supervisors.....		251,229 41
income of state school fund..		192,063 88
all other sources.....		201,803 42
Total amount received.....		\$2,743,343 86
EXPENDITURES.		
Paid out—building and repairs..	\$258,015 97	
apparatus and library.....	16,187 74	
services of male teachers.....	586,250 83	
services of female teachers....	835,841 47	
old indebtedness.....	84,004 70	
furniture, registers, records, etc.....	37,635 96	
all other purposes.....	431,701 78	
		2,249,638 45
Money on hand August 31, 1877.....		\$493,705 41

The above table does not include the items of wages paid to

male and female teachers respectively, in Milwaukee, in the proper places, as they are not specified in the report for that city.

Aggregates of values and expenditures.

DESCRIPTION.	1876.	1877.
VALUES.		
Total valuation of school houses.....	\$4, 125, 903	\$4, 948, 888
Total valuation of sites.....	807, 423	685, 336
Total valuation of apparatus.....	142, 292	154, 628
Totals.....	\$4, 875, 618	\$5, 188, 902
EXPENDITURES.		
Amount expended for building and repairing.....	\$291, 901	\$258, 016
Amount expended for apparatus and libraries	17, 421	16, 188
Amount expended for teachers' wages.....	1, 463, 326	1, 563, 083
Amount expended for old indebtedness.....	91, 670	84, 005
Amount expended for furniture, registers, and records.....	42, 329	37, 636
Amount expended for all other purposes.	248, 104	290, 755
Totals.....	\$2, 153, 811	\$2, 249, 638

In this table, the *aggregate* of wages paid to teachers in the city of Milwaukee amounting to \$140,947, is included under the proper head, rendering the item "amount expended for all other purposes" by so much less than on the preceding table of expenditures.

XII. EDUCATIONAL FUNDS AND INCOMES.

The amounts of the educational productive funds for 1876 and 1877, are stated, in the last report of the secretary of state, as follows:

FUNDS.	1876.	1877.
School fund.....	\$2, 625, 798 06	\$2, 596, 361 07
University fund.....	222, 735 56	233, 240 32
Agricultural college fund.....	233, 479 40	240, 791 90
Normal school fund	963, 917 84	985, 081 34

The income from each of the funds for two years past is given

below; the addition to the University fund income is through the state tax:

INCOME OF FUNDS.	1876.	1877.
School fund income.....	\$192,739 74	\$189,553 13
University fund income	40,803 49	70,641 98
Agricultural college fund income.....	13,618 91	19,237 96
Normal school fund income	81,400 63	85,076 16

XII.— APPORTIONMENT OF THE SCHOOL FUND INCOME.

The apportionment was made as usual, in June. The amount was \$193,021.21, which was apportioned upon 470,783 scholars, at the rate of 41 cents per scholar, the same as in 1875 and in 1876. The distribution by counties is given in Table No. 1.

XIV.— TEXT-BOOKS.

The number of districts reported as purchasing text-books under chapter 315, laws of 1875, is 453, an increase of 186 during the year. Of the whole number, 244 loan the books to the pupils, and 170 sell them. The plan of purchase by the district is evidently growing in favor.

XV.— WEBSTER'S DICTIONARY.

At the close of the account, December 10, 1876, 203 dictionaries were left on hand, of which 131 were distributed as first supplies, and 72 were sold. No purchase has been made for reasons elsewhere given.

XVI.— CONVENTION OF COUNTY AND CITY SUPERINTENDENTS.

This convention was held as usual, just after Christmas. The proceedings are published among the documents appended to this report. Twenty-five superintendents, in all, were in attendance.

XVII.— STATE TEACHERS' ASSOCIATION.

The semi-annual meeting was held at Madison, December 27-28, 1876, and the annual meeting at Green Bay, July 17-19, 1877. The proceedings of both sessions are published with this report.

XVIII.—COLLEGES AND UNIVERSITIES.

Reports have been received from the following institutions, in addition to the State University: Beloit College, Carroll College, Lawrence University, Milton College, North Western University and Ripon College. All these except the North Western University reported last year; Racine College reported last year but does not this year. The statistics given below do not include the State University.

DESCRIPTION.	1876.	1877.
Number of colleges reported, not including State University.....	6	6
Number of members of faculties.....	62	61
Number graduated at last commencement.....	52	71
Total number who have graduated.....	694	697
Number of students in senior classes.....	49	54
in junior classes.....	62	59
in sophomore classes.....	84	87
in freshmen classes.....	130	127
not in regular classes.....	8	123
in preparatory departments.....	949	618
Total number in the institutions.....	1,282	1,068
Number of acres of land owned by the institutions..	2,625	2,156 1/4
Estimated cash value of lands.....	\$61,400 00	\$65,700 00
Estimated cash value of buildings.....	232,550 00	242,050 00
Amount of endowment funds, except real estate.....	308,292 00	245,612 00
Amount of income from tuition.....	15,016 00	14,364 43
Amount of income from all other sources but tuition.	86,787 00	36,602 88

XIX. ACADEMIES AND SEMINARIES.

Only three have reported: Elroy Seminary, Kemper Hall, and Rochester Seminary. The aggregate number of students for the year was 181. Reports will be found in the usual place.

XX. TEACHERS' INSTITUTES.

The entire number of institutes held was 69, which were in 53 different counties and superintendent districts. The wide diffusion of these potent instrumentalities for the improvement of our teachers and the large attendance upon them, reached in 1876, have been maintained. Statistics will be found in Tables 12 and 13.

PURCHASE OF DICTIONARIES.

The last legislature authorized and directed the superintendent of public instruction "to purchase, on behalf of the state, two hundred and fifty copies of the latest edition of Webster's Unabridged Dictionary, at a cost, delivered at his office, not to exceed six dollars per copy." Before the passage of the act directing this purchase, the publishers of the dictionary had voluntarily offered to reduce the price to \$7.50 per copy (from \$8, the price paid by state for several years), and after they had been apprized of the legislative action no better terms could be obtained. Thinking that the general downward tendency of the prices of nearly all manufactured articles might bring a further reduction in the fall, I resolved to make a special and final effort then to secure the dictionaries at the authorized price of six dollars. On the 17th of October, shortly before the former supply was exhausted, I addressed the following letter to the publishers:

OFFICE OF SUPERINTENDENT OF PUBLIC INSTRUCTION,
MADISON, October 17, 1877.

Messrs. G. & C. MERRIAM, Springfield, Mass.:

Gentlemen:—The last legislature, as you already know, authorized me to purchase 250 copies of Webster's Unabridged Dictionary, at a cost "not to exceed six dollars per copy," delivered at my office. Will you please inform me if you cannot now furnish the state the required number at that price, our supply being nearly exhausted.

This reduction of twenty-five per cent., asked by the legislature, appears to me not unreasonable, considering the general reduction recently in the price of school books, and the fact that, in 1861, you furnished the state 300 copies at \$4.00 per copy, and the previous year supplied it at even less rates. Of course, I am aware the dictionary then furnished was much inferior to the present one, but if the former could be sold for \$4.00 and less, I cannot see why the latter need cost us more than \$6.00 now. The difference between the two prices seems even greater than the difference between the two volumes.

If the price I am authorized to pay is sufficient—as I trust it may be—please send me, as soon as possible, the 250 copies, for which I will forward payment, as usual, by state treasurer's draft.

Very respectfully yours,

EDWARD SEARING,
Supt. Public Instruction.

To which I received the following reply,

SPRINGFIELD, MASS., October 22, 1877.

HON. EDWARD SEARING:

DEAR SIR: We have your favor of the 17th inst. You were kind enough to apprise us of the action of the legislature last winter soon after it was had. The state has so uniformly treated us with liberality and promptitude in its dealings with us, that we sincerely regret we cannot wholly meet its views in the present instance.

When we first supplied the state at \$4 (and we believe we have never furnished it lower) the ordinary selling price of the work was \$6. When, afterwards, the price was, from imperative necessity, advanced to \$12, the literary and mechanical cost was so increased that our percentage of profit was still much less than before, and a proportionate advance, viz. to \$8, was made to the state.

The increased cost had a two-fold origin: (1) We entirely reconstructed and enlarged the work at an expenditure for literary and mechanical labor, of between \$50,000 and \$75,000, nearest the latter. The work now contains 25 to 35 per cent. more matter than then; one-third of it, at least, is new; more than thirty years of diligent literary work were devoted to it; and it is now several years later, and contains 25 per cent. more matter than Worcester or any similar work. (2) The mechanical cost also went up, not only in proportion to the size, but greatly beyond. Paper, leather, printing and binding, as in all other productions, went up with the war, and although for a year or two past there has been a tendency downwards, the old rates are by no means reached, but are still 25 per cent. above ante-war rates. The many illustrations scattered through the work and grouped at the end, require much more expense in printing than when there were none. The British skilled workman lives on starvation prices; our Massachusetts corresponding laborer wants the finest Wisconsin flour and beef to live upon, and is able to pay for them.

We cannot, therefore, although with much regret, see our way to make the great reduction you name. You will recall that last winter, before the action of your legislature, we wrote, voluntarily offering to reduce the price to \$7.50. We will now strain to the utmost, and make it \$7, but cannot see our way to go below that. Our uniform policy has been, to keep our work thoroughly abreast of the times, almost regardless of expense, rather than to sacrifice merit to cheapness merely. Is not that true policy? Is it not true wisdom, in regard to such a work, for the Wisconsin Schools? We can but trust the legislature will appreciate the reasonableness of our views, and favor us with the accustomed order.

Respectfully yours,

G. & C. MERRIAM.

In view of the facts that orders for dictionaries are constantly coming from school districts, that the plan of purchase and supply

by the state has hitherto given general satisfaction, and that it appears to be impossible to obtain a further reduction in price, I respectfully recommend the early passage of an act authorizing and directing the purchase of four hundred copies of the dictionary at a cost not to exceed \$7 per copy delivered at this office.

EXAMINATION FOR STATE CERTIFICATES.

An examination for state teachers' certificates was held at the capitol in August last, the time prescribed by law. The board of examiners consisted of President W. D. Parker, of the River Falls State Normal School; Prof. Albert Salisbury, of the Whitewater State Normal School; and Prof. S. H. Carpenter, of the State University. In accordance with the recommendation of the board made in August, 1875, which I thoroughly approved, I have sought to give greater uniformity to these examinations by inaugurating the plan of a three years' service for each examiner. I therefore reappointed Messrs. Parker and Salisbury, who were members of the board for the preceding year. The understanding at the time of the appointment was, that the former should serve one year, the latter two, and Dr. Carpenter three. I believe that this plan of an annual change of only one member of the board will render the examinations still more satisfactory and useful, and that it is approved by educational sentiment. I trust it will meet the approval of my successors in office.

The result of the examination is shown in the following official report of the board:

HON. EDWARD SEARING, *Supt. of Public Instruction:*

SIR:—The board of examiners for state certificates would respectfully report:

That, in accordance with the requirements of law, they have held an examination for limited and state certificates, beginning August 7, 1877, and continuing through Friday, August 10, 1877, holding three sessions each day.

Eighteen candidates were present, either the whole or a part of the session, of whom we recommend the issue of the unlimited certificates to—

Sherman M. Leete, West Salem, Wis.

Hiram W. Slack, St. Paul, Minn.

Several of the applicants purpose completing the examination next year.

The results of the examination are highly creditable in most in-

stances, and your committee feel that the high standard which has been set and which has become a precedent will, in the end, attract an increasing number of applicants, while a lowering of the standard already established would have the effect of deterring the best teachers by rendering the certificate of comparatively little value.

Your committee would further recommend that more time be taken for the examination, so as to do away with the necessity of holding evening sessions, as well as of crowding the work during the day. In the opinion of your committee, ten days would be none too much for an examination that will fairly test the knowledge of the applicants, and not so overtax their energies as to place them at a disadvantage, by working body and mind beyond proper limits.

We would suggest that the whole time now given to the examination be given to those studies required for a limited certificate, and that a second session of two days be given to the additional subjects required for the unlimited certificate.

We also recommend that chemistry be omitted from the required list of studies.

We submit, herewith, the written papers of the applicants, and an abstract showing the results of our examination of the same.

W. D. PARKER,

ALBERT SALISBURY,

S. H. CARPENTER,

Committee.

MADISON, WIS., August 10, 1877.

In accordance with the recommendation, permanent certificates of "eminent qualification" were issued by the State Superintendent to Sherman M. Leete and Hiram W. Slack. Both these gentlemen were present at the examination the previous year, when they completed a portion of the required work.

The recommendation that chemistry be omitted from the list of required studies receives my approval. It is a question whether the list does not still embrace too much. Certain it is that the number of successful candidates is each year very small, and the work, under present requirements, exceedingly severe and exhausting for the time allotted. The average annual number of successful applicants for the permanent certificates during the past four years has been only about four, and the number of those who obtained the five years certificate averages, for that time, only one each year, and of these one-half must be included in the former class, inasmuch as two who first obtained the lower certificate, the following year obtained the higher. Perhaps in no other state is the corresponding examination so severe in requirements, and the numerical results so small. I have a growing conviction that there is a

better way to encourage and honor the intellectual and professional attainments that make a good teacher, than by fixing a single annual examination at the capital, in midsummer, with so many subjects crowded into the three or four days of allotted time that it is almost physically impossible to answer properly in writing all the questions propounded. If more time were given, the results would doubtless be somewhat more satisfactory, but a full week is *now* practically consumed by the examination and the time occupied in traveling, and to add anything more to the present cost in time or money would not be advisable. The pecuniary expense incurred by each applicant, especially when attendance at two examinations is found necessary, as it usually is, undoubtedly is one of the causes of the small attendance of candidates from a distance.

In order that the stimulus of the examination may reach all portions of the state, I am inclined to recommend a simultaneous examination of candidates at different points, under the immediate direction of county or city superintendents. The questions should be prepared by the examining board, the examination conducted in accordance with prescribed rules, and the resulting papers returned to the board for inspection and marking. Evidence respecting the educational advantages enjoyed by the candidates, respecting their success in teaching, and their general intellectual and moral character, should be required, and in most cases could be satisfactorily obtained. When doubt remains, a candidate might be required to appear in person at the regular annual examination at the capital. By thus sending the examinations out to the applicants, and not requiring from all the expense of one, and probably two visits to Madison, the number of candidates would be increased ten fold, and the number of the successful aspirants trebled or quadrupled. The extra cost of this plan would be trifling, while the benefits resulting would not be, as now, so small as hardly to justify the present expense.

Whether, then, a further judicious contraction of the requirements, and such a multiplication of the places of examination, as has been suggested, would not be advisable, I commend to the consideration of my successor and of the legislature. Some special authority for the change would probably be needed from the latter.

I have to add, that during the year I have issued permanent certificates to Mr. Clinton H. Lewis and Miss Elsenä Wiswall, success-

ful candidates at the examinations held in June and August, 1876, but whose experience in teaching did not at the time equal the amount required by law for the higher certificate.

THE TEXT-BOOK PROBLEM SOLVED.

The experience and reflection of another year have only added strength to the conviction that in our existing text-book laws is to be found substantially all that is needed for the prompt removal of whatever grounds of just complaint yet remain respecting the cost, the unnecessary changes, and the want of uniformity of text-books.

Section 53 of the school code makes it the duty of every district board to select and adopt a list of books to be used in each branch of study pursued in the school under their care, and forbids any change of books within a period of three years after adoption.

Chapter 315, of the general laws of 1875, authorizes districts, towns, villages and cities, to purchase text-books, to be the property of the district, town, etc., so purchasing, and to be loaned to pupils or otherwise furnished to them under such conditions and regulations as the school authorities may prescribe.

The unquestionable advantages of the plan of district purchase, recommended and fully explained in my three former reports, and the great additional advantages of free text-books, which I have from the first persistently sought to bring to the knowledge of school officers and the people, are now becoming widely known throughout the state, and are working a rapid and salutary reformation in diminishing the cost of books, in promoting school efficiency, and increasing attendance. Abundant proof of this is to be found in the reports of the local superintendents.

After a careful and impartial study of the text-book question, during the past four years, I have the fullest conviction that the plan of free text-books combines more practical and substantial advantages, from both the economical and the pedagogical standpoint, than any other solution ever yet offered. The free plan of course involves the plan of district purchase at low wholesale rates; but if human testimony has any value it involves a large additional saving through the more careful use of the books, and their continued use by different classes until worn out. It involves also the total absence of any unauthorized changes of books by teach-

ers. It involves from the educational side, (1) a larger attendance of pupils, none being kept from school by the cost of the books they are unable to purchase; (2) the loss of no time at the beginning of a term from want of books promptly furnished; (3) absolute and constant uniformity of books, in the various classes; therefore (4) the best classification, the minimum number of classes, and the maximum amount of time devoted to each by the teacher; (5) convenience in making transfers; (6) the educating influence over the pupils of the requirement to care for books.

So long as the present weak system of petty independent districts is to continue, I can recommend no change in, or addition to, existing text-book legislation, likely to be of any advantage, save perhaps the lengthening to five years of the period during which no change in text-books is allowed after a list has been adopted. Several intelligent county superintendents who are fully sensible of the advantages of the plan of district purchase, advise that this plan be made mandatory by law instead of permissive, that every district be *required* not only to adopt a list of books, but to purchase and keep on hand a supply sufficient for the constant needs of the school, the books being furnished to pupils free or otherwise, as the electors may determine. While I sympathize with the spirit that grieves at the slow progress of a beneficent reform, and that would make all men virtuous or wise at once by a simple legislative enactment, nevertheless I prefer to rely on the power of persuasion, reason and example. These, if rightly used, can accomplish more to secure good teachers, suitable school buildings, regular and full attendance, a satisfactory supply of books, and other like results, than can any mere "compulsory" enactment that may be framed.

Considering the apathetic conservatism of rural neighborhoods, where new ideas take root slowly, and the reformer must be especially patient and long suffering, the new plan of purchasing and furnishing text-books has met with gratifying favor and success. My last annual report showed that, while the law of 1875 had been known to the people but little more than one year, 267 districts had adopted the new plan of purchasing, and that of these, 137 loaned the books free to pupils. The latest official reports from the local superintendents, embodied in the present volume, indicate that during the past school year, 1876-7, 453 districts purchased, and

244 had inaugurated the free plan. It will be remembered that the official action, authorizing the boards in the additional districts to purchase, must have been taken at the annual meetings in the fall of 1876, long before the text-book measures of last winter, in this and other states, had been presented. And it must also be borne in mind that these latest official reports from the counties do not include, in the figures under this head, the additional districts that at the last annual meetings (and in some cases special meetings held for the purpose) authorized their boards to follow the example of the others, in purchasing under the law of 1875. If the ratio of increase in the number of districts purchasing books has been uniform for the three years, the number of districts now taking advantage of the law, and to be reported by the local officers next fall, must be more than 760. There is reason to believe, however, that there has been a still larger ratio of increase. The agents of the leading publishing houses report much more extensive dealings directly with district officers, and recent communications from several county superintendents indicate a more general awakening of rural districts to the advantages of the new plan. The superintendent of Waushara county wrote, early in December, 1877:

"At the time I made my annual and special report fifty-three districts purchased text-books. Now, about seventy-five out of the ninety-two in the county, do so, and it is doing good work."

December 8th, the superintendent of Rock county, second district, wrote:

"Several districts authorized their boards at the last annual meeting to purchase text-books and loan them for rent to the pupils."

The superintendent of Eau Claire county wrote, in December, that at least nine districts in that county were trying the experiment of purchase, for the first time, under authority granted at the recent annual meetings.

The superintendent of Rock county, first district, says in his special report:

"Since the annual school-meetings, many districts have examined the plan more carefully and have called special meetings for the express purpose of adopting the same. By the close of another year, I am of the opinion that our patrons and school officers generally will become thoroughly convinced of the utility of, and the

benefits derived from, our wholesome laws relating to text-books, and will act in accordance with the same."

The superintendent of Trempealeau county has the following in his special report:

"At the close of the school year, August 31, 1877, no districts had adopted the free text-book system, but the matter having been brought specially before the people, through the persistent efforts of the State Superintendent, seconded, to some extent, by a circular issued from this office, several districts have taken action on the subject, and probably, during the year, a large number will have adopted some one of the three plans provided by law whereby districts are authorized to purchase books directly from the publishers."

REPORTS FROM COUNTIES.

Under date of November 27, 1877, I prepared and sent to county superintendents, a circular containing the following questions, to which I solicited answers:

- (1) Has there been, during the past year, any material increase in the number of districts that have formally adopted a series of text books, under section 53, chapter 15b of the school code?
- (2) Does the plan of district purchase, under chapter 315, laws of 1875, give general satisfaction in the districts in your county, where it has been tried?
- (3) If the plan of free books, authorized by the latter law, is in operation in any districts under your jurisdiction, is it working successfully and meeting popular approval?
- (4) Is there any demand, on the part of intelligent people, for any further text-book legislation, and, in particular, for a law to enforce uniformity of text-books in all the schools of the state?
- (5) In your judgment, is any further text-book legislation needed in the interests of the schools or of the people? If so, what would you suggest?

The answers to the first question indicate a very considerable increase in the number of districts that have formally adopted a list of books.

The answers to the other questions, as being of special interest and value, are aggregated below, in the words of the local officers:

TESTIMONY RESPECTING DISTRICT PURCHASE.

- (1) Q. Does the plan of district purchase give satisfaction, where tried?

A. Adams Co.—"A few districts have adopted the plan within a few months. It has not been sufficiently tried to speak with certainty."

Buffalo Co.—"The plan of district purchase where adopted does give perfect satisfaction, and as people are getting acquainted with the same it will be adopted in more districts."

Clark Co.—"Yes, as far as I have heard."

Eau Claire Co.—"The plan of district purchase, under chapter 315, laws of 1875, gives general satisfaction in the districts in which it has been tried."

Green Co.—"A large number of districts have formally adopted a series of text-books. Some under section 53 of the school code, but a large number under chapter 315, laws of 1875. In most cases the boards purchase the books from the publishers and furnish them to the pupils at cost. The people, so far as we know, are well satisfied with what is being accomplished under the latter law."

Jefferson Co.—"It does."

Lincoln Co.—"It does."

Manitowoc Co.—"But few districts have tried the purchase plan further than to purchase for first introduction. Some of these districts are contemplating the purchase of books in quantity for continued use in the schools. In the main, satisfactory results are reported."

Marathon Co.—"The plan of purchase gives general satisfaction."

Milwaukee Co., second district.—"The plan of district purchase under chapter 315, laws of 1875, gives general satisfaction where it has been tried."

Monroe Co.—"It does."

Pierce Co.—"A large number of districts have purchased books and made them free, or sold at cost to pupils, and the work still goes on. The results are in all cases satisfactory."

Polk Co.—"I hear complaint in but one district, and think that is owing to mismanagement on the part of district board."

Richland Co.—"It does. They could not be induced to return to the old method."

Rock Co., first district.—"The plan of district purchase, in most cases, does give satisfaction where it has been tried."

Rock Co., second district.—"The plan of district purchase has proved satisfactory, both with the district and teachers."

Sauk Co.—"The district-purchase plan has given fair, but not complete, satisfaction. It has not been long enough on trial here to be judged by its fruits." In his special report, the superintendent says: "With its cheapening of prices, disadvantages appear, chief among which is inability of some school officers to properly transact the business connected with ordering and keeping track of the books and accounting for the book fund, and by ordering books in such small quantities that trouble and freight overbalance reduced prices." Yet in the answers to the circular he remarks: "The advantages which district purchase and free supply carry in their train, as cheapness, uniformity, regular and local supply, a

little credit to the district once in a while, at times when cash could not be wrung out if individuals bought locally, etc., make we wish them obligatory instead of optional."

Vernon Co.—"About 20 districts have purchased text-books, under chapter 315, laws of 1875, and sell them to scholars at cost. Nearly one-half of previous prices is saved by this method, and, as far as adopted, the provisions of the act give entire satisfaction. It is likely that many more districts will make appropriations for a like purpose."

Washington Co.—"The text-book question with us has been, and is, a vexatious one, as I believe it is everywhere where they have a free-school system. My own opinion is that its solution is to be found in adopting the plan of district purchase. * * A few districts in this county have already adopted the free-text-book system prescribed by our school code, and it gives universal satisfaction. Many more districts are about adopting it, and have sent committees to consult with us regarding the selection of books."

Waukesha Co.—"The plan of district purchase has been adopted by some districts, and I should say, as far as I have heard, has given entire satisfaction where it has been tried."

Waushara Co.—"Yes, decidedly." In his special report the superintendent says: "Nearly all districts now purchase text-books and loan them to pupils."

FREE BOOKS IN THE COUNTIES.

(2) If the plan of free books is in operation in any district under your jurisdiction, is it working successfully, and meeting popular approval?

Ashland Co.—"We have one district that has adopted the free-book system, and I think that it is meeting with popular approval in the district, and gives general satisfaction."

Barron Co.—"The Town of Cedar Lake has been added to the list of towns which supply their schools with books on the free text-book plan; also district No. 2, Lakeland. The town of Sumner supplies its schools with books, but they are not quite free; they will be, though, I am disposed to think, as soon as the people have an opportunity to vote upon the question. The subject is being favorably considered in other districts and towns. I hear of no opposition to the plan of free text-books among those who have given the question any thought; and I think its general adoption in this county is but a question of time."

Eau Claire Co.—"It is everywhere working successfully, and meeting popular approval, so far as I have been able to learn. I visited one school of about twenty-five pupils in which the books have been in use seven weeks. Every book was neatly covered with cloth. There was not a mark in any of them except the number of the book. The children very evidently enjoyed the possession of their new books, and I have not the least doubt they will

be well taken care of. The pupils were well classified, all supplied with books and writing materials; no time was lost."

Lincoln Co.—"It is."

Marathon Co.—"The plan of free books is in operation, works successfully, and meets the approval of the people."

Milwaukee Co., second district.—"The plan is in operation in three districts, and produces good results."

Pierce Co.—"The plan is in operation in about twenty districts, and meets popular approval, except in a few cases of childless taxpayers, who claim it is unjust to them."

Polk Co.—"It is generally approved."

Richland Co.—"People are universally satisfied, and several districts have adopted the plan since the annual meetings. There are probably about twenty of our districts that furnish books."

Rock Co., first district.—"The plan of free books is in operation in only two or three districts, and works well, but some take exceptions to it."

Rock Co., second district.—"In the two districts which have adopted the plan of free books, it has worked admirably, increasing the interest and attendance decidedly. I hear no complaints from those districts against its workings, but, on the contrary, hearty approval."

In his special report the superintendent says: "For the interests of the schools it is, in my opinion, far the best plan. It gives the teacher a much better opportunity to select the proper grade of books and studies, suited to the capacities of the several pupils, and also furnishes a full supply of books at the commencement of the term, when the classes are being organized."

Sauk Co.—"Free text-books are used in eight or ten districts, and, while meeting some opposition, are winning advocates. This plan has my preference as book matters now are." As already shown, the superintendent says the advantages of district purchase and free supply make him "wish them obligatory instead of optional."

Taylor Co.—"The superintendent of this county writes that two districts have tried the plan of district purchase and free books "with the greatest dissatisfaction," because the "board and teachers do not exercise their powers in taking care of the books and have them left with the board at the close of the term of school."

Vernon Co.—"About twenty districts have purchased text-books, under chapter 315, laws of 1875, and sell them to scholars at cost. Nearly one-half of previous prices is saved by this method and, as far as adopted, the provisions of the act give entire satisfaction. It is likely that many more districts will make appropriations for a like purpose."

Walworth Co.—"It is not in operation in any of the schools, but next season I shall make a strong effort to introduce it into my eleven graded schools on the score of saving money, etc. In the country, I don't advise any change at present, as the schools are well supplied, and the books, as I said before, are quite uniform."

Washington Co.—"As above quoted, the superintendent says:

"A few districts in this county have already adopted the free text-book system prescribed by our school code, and it gives universal satisfaction."

Waukesha Co.—"The plan of free books is adopted in a few districts, and I have not heard of any dissatisfaction."

Waushara Co.—"Very successful, yes;" and the superintendent says in his special report: "nearly all districts now purchase text-books and loan them to the pupils."

IS FURTHER LEGISLATION NEEDED?

(3) Is there any demand, on the part of intelligent people, for any further text-book legislation, and in particular for a law to enforce uniformity of text-books in all the schools of the state? In your judgment, is any further text-book legislation needed in the interests of the schools or of the people? If so, what would you suggest?

Adams Co.—To (4)—"I do not think there is."

To (5)—"None."

Ashland Co.—"I do not know of any demand for further text-book legislation on the part of the people, and don't think any is needed in the interest of the schools or people."

Barron Co.—"With this thought in mind I do not consider any more text-book legislation necessary. Among a number of reasons which might be given in support of this view, I would mention the following: 1. We now have the best books in the world from which to select: 2. The law permits a change of text-books once in three years; whereas under the proposed law no such privilege is accorded to local boards, no matter how greatly a change might be desired. 3. It is highly improbable, all things considered, that the books would be supplied at less cost than at present. And, I might add, we have no assurance that school officers or the people would be any more prompt in securing the necessary supplies of books than they now are."

Buffalo Co.—"There is no demand for more text-book legislation, nor any agitation whatever for a law enforcing state uniformity of text-books." "In my judgment no such legislation is needed; any of it would do more harm than good. Of local papers, German and English, that I read, not one, except the *La Crosse Nord-Stern*, is in favor of such legislation. It has, however, not yet presented any real arguments in favor of the same."

Clark Co.—"Not as far as I know."

Eau Claire Co.—"I have never heard from any persons, excepting editors and office seekers, seemingly desirous to remedy all evils actual and imaginary, any desire expressed for further text-book legislation. Those who see the great need of a text-book law claim an interest in it only for the sake of economy."

"For my own part, I can see no advantage whatever to be gained by further legislation. I believe all the evils in connection with

school books from which the people are suffering may be easily and at once remedied by the laws now in existence. I have before me the list of text-books furnished under the Minnesota text-book law of last winter. The cost of the series is \$4.67. I have recommended for the schools of this county a series of books offered by publishers to every district, through circulars sent to school officers, for \$4.83. These books are among the best published in the United States, both in literary excellence and mechanical execution. All have stood the only test which can be applied to school books, actual use in the school room, and have received the hearty approval of many distinguished teachers. There is a difference of sixteen cents in favor of the Merrill (Minn.) school books. I have not seen any of them, and do not know how they compare with the series which I recommend. I think it a safe supposition, however, that books prepared for a single state in which all competition is cut off by law, are not likely to be as good as those which have the whole United States for a market, and which must compete with many others."

Green Co.—"In most cases the boards purchase the books from the publishers and furnish them to the pupils at cost. The people, so far as we know, are well satisfied with what is being accomplished under the latter law. But under the best law that could be enacted, with our present system of having district boards attend to this matter, we will have more or less inconvenience. A good superintendent can do a good deal in helping in the selection and adoption of text-books, but he cannot do all; and I am well satisfied that we ought to have a town board of education to attend to this and some other matters, and have at least a town uniformity in text-books."

Jefferson Co.—"Some are in favor of further legislation, but as far as my observation extends, there are three opposed to one in favor. I would suggest that chapter 315, laws of 1875, be so amended as to make it the duty of the board to purchase suitable text-books, after having complied with sec. 53, ch. 155 of the school code."

Lincoln Co.—"I have heard none. It seems to me that it would be better to try the present text-book law a little longer first."

Manitowoc Co.—"But few districts have tried the purchase plan further than to purchase for first introduction. Some of these districts are contemplating the purchase of books in quantity for continued use in the schools. In the main, satisfactory results are reported. I know of no district in which the free text-book plan has been tried. If at all practical with us, it is of the future."

"There is a general demand for *cheaper* text-books, and, I believe, the people generally are favorable to any policy or legislation contributing to that result, not absolutely hurtful in tendency. A latent desire exists for state uniformity, but not of a character to accomplish anything of importance."

"If the power were given to district boards to control the matter of district purchase, rather than to the school district, a large number of districts would adopt the plan. The power to purchase and

sell might be given to boards at their option, and the more extensive power of purchasing and renting or loaning withheld. Many boards would assume the risk, personally, were they legally authorized to do so."

Marathon Co.—"The plan of purchase gives general satisfaction. The plan of free books is in operation, works successfully, and meets the approval of the people. There is no demand on the part of the people for any further legislation on text-books. Intelligent people deprecate a law to enforce uniformity in text-books in all the schools of this county. In my opinion no further text-book legislation is needed for the schools of this state."

Marquette Co.—"Each town should have a uniformity of text-books."

Milwaukee Co., first district.—"Upon inquiry, I find there is no demand on the part of the people, for further text-book legislation. At present the district boards have power to secure uniformity of books in *their* districts. In my opinion, as long as adopting a series of text-books is left with the district boards, we will never have uniformity of books. I am of the opinion that the state and county superintendents should have more power in the matter. Would it be wise to have county superintendents, acting under the advice and instructions of state superintendent, adopt a series of text-books for their counties, or for the towns of their counties, making as few changes as possible to secure uniformity?"

Milwaukee Co., 2d district.—"We have *all* the text-book laws that we need, and there would be much opposition to any law attempting to enforce a uniformity of text-books throughout the state. The only law in reference to the matter that would be of any service to the schools would be a law requiring each school district to adopt *some* series of text-books."

Monroe Co.—"The general opinion is that there is nothing material to be gained in state uniformity; or rather that the loss in some particulars would exceed the gain in other directions, and that state uniformity is not desirable."

"I have not sufficiently studied the text-book question to suggest improvements in the present law. The particularly weak feature of our common school system seems to be the placing of dictatorial or discretionary power upon persons who have not the knowledge or understanding of school work that enables them to use their authority for the best interests of the work. I believe the "township school law" an improvement, but being left optional it is of little or no benefit by reason of towns refusing to adopt it."

Pierce Co.—"No demand for further legislation, I believe. I would consider it profitable to pass a law *compelling all* districts to purchase, instead of leaving it optional. Perhaps not at once, but whenever they adopt or change books. Allow districts to select their own series."

Polk Co.—"I think not. Would prefer to try the law as it is."

Richland Co.—"There is no demand for further legislation, where the people understand the laws now in force. No further legislation is necessary, and especially in the direction of state uniformity."

Rock Co., 1st district.—"There is not much of a demand for further text-book legislation on the part of intelligent people. A few advocate text-book uniformity throughout the state—not a majority, however. In my opinion, no further text-book legislation is needed, at present. It is no easy matter to convince the masses of the utility of any newly made plan, however well it may have been systematized, until it has been thoroughly tried, and they actually see the benefits derived from it. I think after the present plan is more thoroughly understood, and districts become more familiar in operating the plan, it will meet with general approval."

Rock Co., second district.—"There is a very general belief on the part of people well posted in the matter, that no further legislation is needed, especially to enforce uniformity of text-books. I cannot see why the present laws are not all that are needed on the text-book question."

Sauk Co.—"Many intelligent people heartily sympathize with efforts to further cheapen text-books, not alone from self-interest, but as friends of common, *lower* education. They do not interest themselves about state or county uniformity, rather preferring local selection. The advantages which district purchase and free supply carry in their train, as cheapness, uniformity, regular and local supply, a little credit to the district once in a while at times when cash could not be wrung out if *individuals bought* locally, etc., make me wish them obligatory instead of optional."

Taylor Co.—"I have not heard any demand for any further legislation on text-books. It would cause a general dissatisfaction to pass a law to secure uniformity of text-books throughout the state."

Trempealeau Co.—"Two gentlemen who served as clerks in the last legislature are somewhat clamorous for such a law. Beyond *that*, there is no demand or even desire for any such law, so far as I am acquainted. In my judgment any text-book legislation, or any movement in that direction, would be a disturbing element prejudicial to the interests of education in the state."

Vernon Co.—"About twenty districts have purchased text-books, under chapter 315, laws of 1875, and sell them to scholars at cost. Nearly one-half of previous prices is saved by this method, and as far as adopted the provisions of the act give entire satisfaction. It is likely that many more districts will make appropriations for a like purpose. In our opinion, we have all the legislation on the subject of text-books that the interests of our schools demand."

Walworth Co.—"There is no demand here for further text-book legislation. In this old settled county we do not experience the same difficulties that may arise in the northern or less wealthy and intelligent counties of the state. I think no more legislation is needed."

Waukesha Co.—(4) "I do not think there is." (5) "I think if we could have a uniformity of text-books it would be better for the schools of the state."

Washington Co.—"The text-book question with us has been and is a vexatious one, as I believe it is everywhere where they

have a free school system. My own opinion is that its solution is to be found in adopting the plan of district purchase. It seems to me that in this way every evil growing out of the prevalent haphazard purchase of books will be eradicated, and the possible and probable danger of fraud and dishonesty to grow out of a state publishing system will be avoided. This being my view upon the subject, it is needless for me to say that I do not think any further legislation on the subject is necessary.

"A few districts in this county have already adopted the free text-book system prescribed by our school code, and it gives universal satisfaction. Many more districts are about adopting it, and have sent committees to consult with us regarding the selection of books. I say, stop legislation where it is, and if the county superintendents will make the proper effort in co-operation with the state superintendent, it will be but a few years before we will have all the uniformity of text-books desirable, and free text-books in almost every school."

Wausara Co.—"At the time I made my annual and special reports, 53 districts purchased text-books. Now about 75 out of the 92 in the county do so, and it is doing good work. I believe in district purchase of text-books. * * Nearly all * * loan them to pupils." The plan is "very successful. I think that a state law in favor of uniformity would prevent much quarrelling over the rival claims of publishing houses."

TEXT-BOOKS IN CITIES.

Three cities of the state, Watertown, Grand Rapids and Berlin, already purchase and supply, through their school boards, the text-books used in their schools, Watertown furnishing them free to the pupils, Grand Rapids selling at cost, and Berlin charging a fixed sum per term for their use. Having sent to the superintendent or principal in each city a note of inquiry respecting the working of the new plan, I give the following extracts from the replies received:

GRAND RAPIDS.

From Supt. Chittenden:

"The books are bought directly from the publishers, and thus are obtained at the lowest possible rates. They are sold to our scholars at an advance upon cost just sufficient to cover freight charges, etc., settlement being made with the publishers every thirty days. I am unable to say how long the system has been in operation, the records of the board prior to my accession to office having been somewhat carelessly kept. I think, however, that the board first undertook the business of supply a year ago last September, or thereabouts. At first purchases were made by the

principal, who also took charge of sales, turning over all cash received to the treasurer, who made payment. This plan, however, working somewhat unsatisfactorily in several respects, a change was made in September last. At that date the superintendent took charge of the whole business, purchasing books as they were needed, receiving cash for all sold, and making all settlements according to contract with publishers. Since then everything has worked smoothly.

"As far as I know the plan gives general satisfaction; the scholars are supplied with all books needed at very low rates, and teachers are free from all embarrassment in regard to their classes. Our local dealers are perhaps losers to a certain extent, but I hear no serious complaint even from them. Almost all books used are bought from Barnes & Co., and Ivison, Blakeman & Co., New York and Chicago."

BERLIN.

The following rules adopted by the board of education were sent by Principal Stewart.

I. This shall be called the Berlin School Text-Book Library.

II. A separate library shall be kept in each school building in the city, in a suitable place provided by the school board for that purpose; and each library shall contain all the books necessary for the use of the scholars attending school in such building.

III. The books shall be for the use of all scholars attending the city schools, subject to the rules hereafter adopted.

IV. These books shall be distributed by the person or persons appointed by the school board for that purpose, on the first day of each term, and at such other times as the superintendent or principal shall deem necessary.

V. The person or persons appointed for the distribution of the books, shall keep a record book which shall contain the name and grade of each scholar to whom books are delivered, together with the number, name, and date of delivery and return, and condition of each book at each time. Also an account of the amount of rental and deposits. Such record shall be kept separate for each department of the school.

VI. Each scholar receiving books shall pay the following rental in advance:

In the primary department, 50 cents per annum, for the use of all books necessary during such year.

In the intermediate department, \$1 per annum.

In the grammar school, \$1 per annum.

In the high school, \$3 per annum, or \$1.25 per term.

Each scholar receiving books shall, in addition to the rental, deposit, each term, as follows:

In primary department, 25 cents.

In intermediate department, 50 cents.

In grammar school, 75 cents.

In high school, \$1.

The conditions of the above deposit are, that if, upon the return of the book or books, they shall be found to be in as good condition as when taken, ordinary wear and tear excepted, the whole deposit shall be refunded; otherwise, a proportionate amount of the deposit shall be forfeited to the library fund, according to the damage to the book or books; the amount of such damage to be determined by a person appointed by the board of education for that purpose. If the book is not returned at all, the scholar shall forfeit the above named deposit, and pay in addition thereto a sum sufficient to equal the value of such book.

VII. All scholars having such books as are hereafter to be used in the city schools, can present them to the librarian, and receive therefor credit for the amount of their value, which credit shall apply on the rental of books they may need thereafter; such value to be determined by the school board, or by some person or persons appointed by them for that purpose.

Mr. Stewart sent the following explanation and comments:

In Berlin, as you see by the rules, the old books in the hands of the pupils were bought and put in with the new to be loaned back for use in the school. The old books were rated as A, good; B, fair; C, poor; and the rating marked on the labels. Renting is optional. About one-third, perhaps less, rent; but the larger portion are in the higher grades. The plan is not unpopular, nor yet is any one enthusiastic over it. I do not see that the care of books in the school is in any way bettered by the change, nor is it any worse.

There are serious difficulties in this plan. The principal, appointed by the board, is burdened with an extensive book account with the pupils. When books are returned, he has to decide anew their rating, and impose fines for misuse. After a book has passed out two or three times, and a long time has intervened, it is difficult to fix any responsibility. "It was so when I received it," is hard to disprove. Any little neglect, in the hurry of giving out or taking in the books, may be the cause of serious complaint. Nor do I see that the teachers have any better chance to care for the books than though they belonged exclusively to the pupils.

The clerk informs me that it will take about three years to determine the profit or loss on the investment. On the whole, I prefer the sale, as at Grand Rapids, to the loaning system here; though the latter has one advantage: convenience in changing pupils from one class to another. But as only about one-third rent their books, this can not be considered as very important by the patrons. Stationery is not furnished in either city.

From my experience in all kinds of school work, I should advise districts either to loan the books free, or to sell them at cost. I am satisfied that, with experience, the law is adequate to remove most of the evils of the old individual system, and still leave the people in full control of the manner of books to be used in each district.

WATERTOWN.

After careful investigation of the plan of free books by the school board of this city, nearly one year ago, the board unanimously endorsed it and recommended it to the common council for adoption. The latter body also, by a unanimous vote, authorized the board to purchase the books and inaugurate the reform. Supt. Beber writes:

"The saving in cost by purchasing direct from publishers, compared with usual retail prices, is about 40 per cent. There is also a larger saving in books under the old system a great many books were never used up, but thrown aside when the pupil was promoted or left school. Now all books are used until worn out. The large majority of scholars keep the books furnished to them well, and they will consequently last a long time. A few, especially small pupils, use them up more quickly. For books wantonly or carelessly destroyed, we find very little difficulty in getting the price paid back. Objections to the system amongst our citizens I have heard but few, and these few emanate mostly from parties opposed to public schools in any shape."

"About the annual cost of furnishing books per pupil, it is not possible at such an early date to form a quite correct estimate. However, it is my belief that after the first installment, which costs considerable more, it will be from 30 to 35 cents per pupil for every school year."

"One of the greatest advantages secured by the introduction of this system is a better attendance of pupils, and the very important fact, that all, whether rich or poor, are supplied all the time with every necessary school book. I sincerely hope that ere long a great many of our cities and villages will avail themselves of the advantages to be secured by the adoption of the free text-book system."

Principal Bernhard, of the same city, writes:

"Concerning the financial and administrative aspects of the question, Superintendent Bieber, I am informed, has reported to you. Still permit me to join him in the statement that, as far as our experience goes, the results fully agree with the plain teachings of political economy, in promising to our citizens collectively the annual saving of hundreds of dollars for the future, and to our pupils a better supply of the substrata for successful study than they ever have enjoyed before. But however acceptable these advantages may be, I do not hesitate to place a much higher value on the important results which the free plan will exhibit with regard to general government and discipline, and on the great influence it will have in improving the moral and intellectual powers of our youth.

"According to our rules, the teachers have control of the books,

being responsible to their respective principals, who, through the superintendent, report at the end of each term to the standing committee on text-books. The teacher keeps an account with the pupil. If the books are not injured, except the natural wear and tear, no charge is made; otherwise the cost price of the book is collected. If the parents of the pupil refuse payment, the pupil is suspended forthwith, and the fact reported to the superintendent. If teachers neglect to report in time, they are responsible for any loss thereby incurred.

"Now, all this enforces upon the teachers the most careful attention to the well keeping of the books used in their classes, and as far as I can see, they do this to an extent to which they never have done it before the books were furnished by the Board, though it was then as much their duty as it is now. This naturally reacts on the pupils, and through them even on the parents. The teachers do not wish to see the books dirty; well, then, the pupils must keep their hands clean; with cleaner hands come cleaner faces, etc., that is, habits of neatness and good order. It is an old truth that extra exertion in one branch of discipline naturally reacts on others, and thus I feel sure that the free text-books will help to improve discipline and government in general; nay, I am sure they have done so already. I see a noble emulation arise among our teachers, wherein the majority of the pupils join; dirty and disorderly scholars begin to be aware that they are despised, and thus many are corrected.

"The influence of the free book plan on the intellectual improvement of our youth will, it seems to me, in the course of time, be just as incisive. * * * It will increase the length of school-attendance; especially it will bring a larger number of pupils into the upper grades. I know how many poor children have to leave school because their parents cannot procure, or though they can, do not want to procure, the more costly books used in the higher grades.

"It will increase the number of pupils taking up the whole programme in every grade, doing away with the fragmentary character of an education based on select study, and thus enable our high school to furnish a larger number of pupils fit and well prepared for admission into the higher institutions of the country. * * *

"We do not furnish to our pupils any stationery free of charge, but the superintendent is authorized to sell to them penmanship and drawing books at cost price. I am not now prepared to include stationery in the free-book plan."

THE FREE PLAN IN OTHER STATES.

My three former reports have contained abundant evidence of the success and popularity of the plan of free books in other states. They have conclusively proved that this plan is no longer an experiment. They show that text-books have been entirely free in the public schools of the city of New York for more than forty years;

that they have been so furnished in Newark, N. J., for twenty-five years; in Patterson, N. J., ever since the schools were organized; in Lewiston, Me., for five years; in Fall River, Mass., for four years; in Bath, Me., for eight years; in Batavia, Ill., for ten years; and that for several years books have been free in some hundreds of districts in Kansas.

Of the numerous other localities, not specially designated in former reports, where free books have been approved and adopted, I will mention only Philadelphia, from which the reply to my circular letter of inquiry was received too late for insertion in the report for last year. The secretary of the school board informed me last spring that in that city, text-books "are supplied to all"; that they have "always been supplied to pupils;" that they "are supplied at least one-third cheaper than they can be purchased by pupils"; that the result is a "larger attendance;" that the plan is "very satisfactory;" and that the cost "averages \$1 per pupil per annum, including all schools, high and normal." Accompanying the answer was a printed "list of books and stationery furnished to the public schools of the city of Philadelphia, with the prices annexed."

The following extracts from recent educational reports indicate a wide-spread and growing conviction among the best educational authorities, that in the free plan, now in successful operation in Wisconsin, is to be found the best practicable solution of the troublesome text-book question. Says Hon. Warren Johnson, late State Superintendent of Schools of Maine, in one of his reports:

"At first thought it would seem sufficient provisions have been made for the education of *all* our youth, when the school-house and the teacher, shelter and tuition, had been freely granted at public expense. The pupil, however, can accomplish but little without books — his tools. To furnish these at private expense proves in many instances a hardship, particularly to poor parents with large families, and more especially to the itinerant laboring class. To lighten this burden, some states have established regulations by which the same series or editions of text books should be used throughout the limits of the state. This plan has not invariably been successful. Within a few years it has occurred to some of our most intelligent communities that the burden can be entirely lifted from the classes indicated by furnishing books at public expense, precisely as school shelter and tuition are. The advantages of this plan were alluded to in my last report, and the experience of the city of Bath was brought in testimony as presented in the re-

port of Supt. S. F. Dike. I am pleased to call the attention of school officers to this important feature again this year, by presenting the following communication from Thomas Tash, Esq., superintendent of schools, city of Lewiston. The plan is equally desirable and possible in *all* our towns, and, it seems to me, would be readily adopted by our people, if school officers would clearly present the same for their consideration at the annual town meetings. By reference to section 6, school laws, it will appear that sufficient authority is given towns to accomplish this desirable object, broadening present school facilities with immense advantage to children and large saving of expense to parents."

Hon. E. H. Apgar, now and for many years past the efficient superintendent of New Jersey, says:

"There is no reason why the purchase of books should not be met by a common tax, as well as that incurred for erecting school houses, hiring teachers, or purchasing fuel. The custom is common in the cities, and there is no reason why it cannot be introduced in the rural districts with equal facility and advantage."

Hon. John Fraser, superintendent of public instruction of Kansas, says in his report for 1875:

"If text-books are owned by a school district, uniformity of books can be secured, in that district, without any trouble; and classes can be formed at the opening of the school, and pupils, on entering, can be classified without any waste of time arising from the negligence or unwillingness of parents or guardians to furnish text-books. * * * According to the report of the past year, 338 school districts own their text-books. * * * Having conversed with many persons belonging to districts that own their text-books, I have learned from them that the plan works acceptably where it has been fairly tried."

In his last report (1876) Mr. Fraser says:

"I still believe this plan to be the best solution of the question of text-book uniformity, at the least expense to the people."

Hon. Ezra S. Carr, superintendent of public instruction of California, says, in the last biennial school report of that state:

"No subject has attracted greater attention from the educators of the country during the past two years, or has been more generally recommended, than that of supplying free text-books to the public schools. Having been successfully tried forty years in the city of New York, thirty in New Jersey, eight in the state of Illinois, from five to ten in many eastern cities, where the cost of books has been reduced from three dollars to from seventy-five cents to one dollar for each child, it cannot be regarded as an experiment. From the mass of testimony added, I have no doubt that this plan would increase the attendance and efficiency of the schools."

And prefacing several pages of my last year's report, reprinted in his own, Dr. Carr says:

"The following extracts from the last report of the superintendent of public instruction in Wisconsin exhibit the present status of the free text-book question. May not the right to choose, purchase, and own their text-books, under proper restrictions, on the part of trustees and boards of education, thus recognizing the right and capacity of the people for self-government, be a solution of our present text-book dilemma?"

Hon. Chas. S. Smart, state commissioner of common schools of Ohio, in his report for 1876, says:

"How many of these children out of the public schools, or irregular in attendance, are out or irregular because their parents are unable to buy the books required, I am unable to say. There can be no doubt that many of the independent poor prefer to let their children stay out of school rather than to accept the *charity* offered to the indigent by the board of education.

"We have a public school system wise, beneficial, extending to all, the rich and the poor alike, the privileges of a common school education, and *any influence or interest* within the system, or extraneous to it, which excludes, or tends to exclude, any child of school age, rich or poor, white or black, from the privileges of this education, intended to be *free*, is in antagonism with the interests of the public, and should be frowned down by popular sentiment, or restrained by legislation."

And best of all, Superintendent Wickersham, of Pennsylvania, whose ability and large experience make his opinion peculiarly valuable, gives his unqualified endorsement to the free plan, in his last annual report, some advance pages of which I have received. He says:

"On the whole there seems to be no better way of treating this subject of text-books, than for boards of directors to furnish them as they do school apparatus and appliances, free to all pupils attending the schools. This plan has several very obvious advantages: it lessens the cost of the books one-third, if not one-half; it secures perfect uniformity of books in each school district, and, consequently complete classification of the schools; it saves the expense of purchasing new books, upon changing residence from one district to another; it does away with the invidious distinction that is apt to prevail among the pupils of a school where some procure books at the public expense, and others provide them at their own; and it enables teachers to advance their classes when prepared, and to introduce new studies, without meeting the difficulties usually thrown in their way when additional books are to be purchased. These are important advantages."

After answering objections, he adds:

"Philadelphia has furnished books to the schools, with other supplies, for many years, and all the leading school-men of the city approve of the plan. Books are also furnished free in a considerable number of school districts in different parts of the state, and in them all, so far as is known, the plan meets with general approval. The same is true of many places that might be named outside of the state."

"As it is somewhat doubtful whether the law, as it now stands, gives school boards the legal right to purchase books to be furnished free to all the pupils in the schools under their control, I recommend the passage of a law, allowing them to use their discretion in the matter."

As well for the practical hints they contain respecting the proper management of the free-book system, as for the convincing evidence of the success of that system after full trial in three other states, I reprint the following letters from my last annual report. They were received in reply to a circular requesting answers to certain questions:

From PATTERSON, N. J.:

"Q. 1. To what extent are text-books furnished free to the pupils in your schools? Ans. All are furnished with the books required.

"Q. 2. How long have they been so furnished? Ans. I cannot tell, but I think it has been so since the schools were organized.

"Q. 3. What are the results in respect to economy? Ans. It is a great saving.

"Q. 4. What are the results in respect to school efficiency, attendance, etc.? Ans. Excellent.

"Q. 5. Are the books as well cared for by the pupils as if owned by them? Ans. They are.

"Q. 6. Does the plan give general satisfaction to those concerned? Ans. It does.

"Q. 7. What are your regulations governing the distribution of books? Ans. Each pupil must replace any books lost, damaged or destroyed. I send you my last annual report, in which you will find question seven fully answered. Very respectfully,

"WM. J. ROGERS,
"Superintendent."

The above shows all the questions of the circular.

From FALL RIVER, MASS.:

"Answer to question 1. All the text-books and stationery used in the school are furnished free.

"Answer to question 2. They have been so furnished nearly four years.

" Answer to question 3. The cost is not one-half, under this arrangement, what it would be if each pupil furnished his own.

" Answer to question 4. The books are now ready on the first day of each term, and the attendance is very much improved.

" Answer to question 5. The books are very much better cared for. This may seem strange to you, yet it is a fact.

" Answer to question 6. It gives general satisfaction. I have yet to hear the first complaint against the plan.

" Answer to question 7. See enclosed label (given below).

" Yours very truly,

" W. CORNELL, JR.,

" *Superintendent of Schools.*"

<i>Seal of the City here.</i>	<p>PUBLIC</p> <p>SCHOOLS.</p>
<p>THIS BOOK BELONGS TO THE</p> <p>CITY OF FALL RIVER.</p> <p>It is lent to the Teacher of</p> <p>Morgan Street Grammar School,</p> <p><i>Room No....., Book No.....</i></p>	
<p>Books must be accounted for to the Superintendent by the teachers at the close of each term.</p> <p>Teachers may allow pupils to carry their books home for study, but in case of loss or material injury, the book must be replaced at once by the pupil.</p> <p>To mark upon or otherwise deface any book furnished by the city must be regarded as a serious offense.</p> <p>Teachers shall be held responsible for the proper account and care of books.</p>	

From NEWARK, N. J.:

The following valuable information comes from this city:

" NEWARK, N. J., *February 3, 1877.*

" *Dear Sir:*—1st question.—Ans. I send you a list of books, stationery, etc., furnished entirely free. (The list embraces everything used in all grades, from primary to high school, inclusive.)

" 2d question.—Ans. Twenty-five years.

"3d question.—Ans. As it regards economy, the accounts show that for the last ten years the books and stationery have cost an average of less than 75 cents a year to each pupil, including primary, grammar and high schools.

"4th question.—Ans. Under this system there is no excuse for a pupil's absence on account of the necessary books or implements for work; consequently we believe the attendance is more regular, and pupils will necessarily progress more rapidly than they otherwise would, thus adding greatly, we believe, to the efficiency of the schools.

"5th question.—Ans. I believe they use their books in school as well as if they were their own. Primary pupils are not permitted to take their books home, and others only one book for studying a lesson. Pupils are required to cover each book with strong cloth. The books given to a class are examined every two weeks by the teacher. If any book is lost or willfully marred or defaced, the pupil is required to pay for such damages, on penalty of dismissal.

"7th question.—Ans. Proposals are solicited from several parties for furnishing books as they may be needed, according to schedule furnished. The one who receives the contract prepares himself with the necessary supply.

"When a principal needs books for his school he makes an order on the secretary, keeping a duplicate himself. The secretary approves or refuses as he thinks wise, and keeps a duplicate in a book purchased for the purpose,—then the order is sent to the contractor who supplies the order to the schools. A class receives a set of books, which they use until they are promoted to a higher grade.

"These books are left behind for the class below, and so everything in that grade in the way of books, stationery, etc., remains until worn out.

"I believe the method adopted of furnishing books, etc., is a saving of 50 per cent. to the patrons of the schools, over that of each pupil furnishing his own.

"Please find below the average number of pupils enrolled, and the entire cost of books and stationery for the years 1873-4-5-6:

<i>Years.</i>	<i>No. Pupils.</i>				<i>Cost.</i>
1873	-	-	10,302	-	\$7,607 10
1874	-	-	10,867	-	7,649 05
1875	-	-	11,518	-	8,183 07
1876	-	-	12,198	-	8,223 10
Total	-	-	44,885	-	\$31,662 32

"This aggregate cost includes books, etc., for the evening schools, the cost of which is about \$300 a year, and the evening school pupils are not included in the number given you. So that the cost for the day school pupils will be a trifle less than the sum I named—about 70 cents.

Respectfully yours,

"GEO. B. SEARS,
"City Sup't Public Schools."

From CITY OF NEW YORK:

Hon. Henry Kiddle, city superintendent, writes as follows:

"OFFICE BOARD OF EDUCATION,

NEW YORK, *February 8, 1877.*

"*Dear Sir:*—Yours, with interrogations in regard to text-books, received, to which I take pleasure in responding:

"(1.) Text-books are entirely free in New York.

"(2.) Upwards of 40 years.

"(3.) I cannot answer this question. Of course, the supplying of books adds a large amount to the expenses of the system. Whether, on the whole, the books would cost more or less if supplied by parents, I am unable to say. There is, however, great economy of time to our principals in the system of free books.

"(4.) I have no statistics bearing on this point. There can be no doubt, however, that the schools are more efficient and the attendance of pupils larger, by the operation of the system of free books.

"(5.) We enforce the greatest possible care of text-books by the pupils.

"(6.) No dissatisfaction has ever been expressed with the school law on this account.

"(7.) I send a copy of the manual of the board, from which you will be able to obtain a full answer to this interrogatory. I shall mail also some blanks, etc., referring to the matter.

"With much esteem, yours truly,

"HENRY KIDDLE,

"*City Superintendent.*

From LEWISTON, Me.:

The following letter is from Thomas Tash, Esq., whose admirable communication published in my first annual report was one of the strongest arguments for free books there presented:

"OFFICE SUPERINTENDENT PUBLIC SCHOOLS,

LEWISTON, ME., *February 3, 1877.*

"*Dear Sir:*—Yours of the 27th inst. is at hand. I send you two copies of the city school reports, in which the answers to your questions are satisfactorily given. As time brings us experience, the 'free text-book' plan commends itself still more favorably. Should you have in your office our state superintendent's report, 1873, on page 70, etc., you will find our experience stated, since fully verified. I will also here answer your questions in order but briefly, hoping it may be of some service to you:

"1. We furnish text-books and every other needed school appliance to all our schools of every grade.

"2. We have furnished in this way about five years.

"3. School books, stationery and other appliances do not cost the

city much, if any, over half the cost to citizens; and if we consider the *time books are used*, not nearly in that proportion.

"4. Free text-books add greatly to the convenience and efficiency of our schools, and much to school time. Teachers fully concur in this.

"5. Books are much better cared for than when owned by pupils, and are entirely free from pencilings and obscene drawings, etc.

"6. *All* express themselves satisfied with the plan; none would *care* to oppose, I fancy. The people are for it, so politicians cannot be against it.

"7. Books are furnished to the schools, for the use of the scholars, under the direction and care of the teachers, who are held responsible for their use, and to see there is no abuse. Children carry them home freely, but all are kept in the school rooms in vacations. Each book is stamped with city or office stamp, and properly labeled. Reader, speller, arithmetic, etc., No. 1, is placed in desk No. 1; 2 in 2, and so on; so each child is responsible for that number. If they change desks, child No. 1 may be charged books No. 1, etc., so books can be easily looked up in case of question.

"All books, so far, have been purchased by the superintendent of schools, directly of publishers, at 40 per cent. off retail prices. When we exchange books we get one-half and 10 per cent., or 55 per cent. off retail prices. Books have been distributed to teachers from superintendent's office, on their order. This adds to the work of the office. We now propose to allow one of our merchants 5 per cent. on cost, the cost being same as above, and we order of him, or sanction teachers's orders; then the city will deal with but one person, and this office will be relieved of all the work of receiving and delivering material. This, I think, will suit us much better, and the expense be, on the whole, no more.

"Hoping that, as a state, Wisconsin may lead off in *requiring* all needed school material furnished free to her schools,

"I am, respectfully,

THOMAS TASH."

I think it has now been made clearly apparent:

1. That under the privilege of district purchase, authorized by an existing law, text-books can easily be obtained at a saving of at least 40 per cent. from the recent retail rates which have been a source of so much complaint.

2. That the plan of free books is more economical than the plan of individual purchase and ownership, even if the first cost of books were the same.

3. That the plan of district purchase insures perfect uniformity of books in each district where it is adopted.

4. That free books, besides being economical, possess obvious and marked advantages from the educational point of view.

5. That the plan of district purchase is working successfully in all quarters of the state, is popular, and is rapidly spreading.

6. That the free plan is almost universally successful and popular wherever tried in this state, and is winning approval and adoption in other states.

STATE UNIFORMITY.

There now remains the question, Would there not be large *additional* advantages in state uniformity? Granted that under existing laws, district purchase saves to the people 40 per cent. of the recent prices of school books, would not a law compelling all schools to use one series of books, and, perhaps, all boards to purchase of one "contractor," cause a saving of ten or twenty per cent. more?

I shall endeavor to answer this question candidly and intelligently. There is no reason to doubt that any one of the best known eastern publishing houses could afford to and would be willing to contract with the state of Wisconsin to supply our schools with approved and satisfactory text-books, for a period of ten or fifteen years, at an average discount of at least 60 per cent. from recent retail prices, or 20 per cent. below the price now paid by district boards. The monopoly for the entire state, however, must be guaranteed, and the books must be received in bulk by the state, or at least by the counties, and must be promptly paid for. In view of the exclusive, largely increased, and secure wholesale trade with the state, involving on the part of the publisher no outlay for agents, for advertising, for gifts of examination volumes, etc., etc., such a contract would doubtless be more profitable than the present competition, with more limited sales, and the attendant heavy expenses.

But how is the state to guarantee to the contractor a monopoly of sales for a period of years? The usual answer is, By making it a misdemeanor, punishable by fine or imprisonment, for teachers or school officers to use or allow to be used in the schools, other books than those prescribed by state authority.

This method, however, of securing the exclusive use of a particular series of books in the schools *has been abundantly tried in several other states and has uniformly failed*. State uniformity cannot be secured by this means. Multitudes of people in multitudes of districts will not believe it a proper "misdemeanor" for their own school officers to select text-books, as well as to care for other school interests, or for their children to continue to use the satis-

factory books that may have been already authorized by the board and paid for by hard earned money. Cities almost universally insist upon the privilege of local selection, and they are usually expressly exempted from conformity by a provision of the law itself, as now in Minnesota. In country districts no one cares to bring an action against a teacher or board for that violation of law which is simply involved in allowing things to "drift," and after a few well meant but abortive efforts at conformity, mostly in rural districts, the law is quietly ignored after having done no good, and sometimes a positive injury.

EXAMPLES OF FAILURE.

As evidences of the failure of laws to secure text-book uniformity in other states, I cite here merely the examples of Vermont and Minnesota. I recently addressed a letter to the superintendent of education of Vermont, asking for information respecting the working of the text-book law of that state. Substantially the following questions were asked:

"(1) To what extent did the law secure uniformity? (2) Did it cheapen the cost of books? (3) Would the superintendent recommend to Wisconsin a law to secure uniformity of text-books throughout the state? (4) Did the Vermont law apply to all grades of schools?"

The following reply was received:

STATE OF VERMONT,
Office of Superintendent of Education,
RANDOLPH, November 15, 1877.

HON. EDWARD SEARING, *Madison, Wisconsin:*

DEAR SIR:—To your letter of November 8, 1877, I reply: 1st. Uniformity of text-books was never secured through our state by our law on the subject. The variety of text-books was somewhat diminished, but the law was never popular, and it was repealed in 1874. A recommendation made under the law continues till November 1, 1878, but is not much observed.

2d. I do not think the plan adopted cheapened books to the people to any appreciable extent.

3d. I do not recommend a law for securing uniformity of text-books throughout a state.

4th. Our law applied to all grades of public schools.

Very respectfully,
EDWARD CONANT, *Supt. of Education.*

An attempt was made in Minnesota, by the law of 1868, to secure uniformity and to regulate the price of text-books. President Wm. F. Phelps, of our own Whitewater State Normal School, formerly for many years at the head of the Winona, Minnesota, Normal School, and thoroughly conversant with the working of the Minnesota text-book law, wrote in February last in reference to that law: "The attempt to force uniformity by legislation in Minnesota, some eight or nine years ago, resulted in utter failure, and left the schools in a far worse state than it found them."

But the most conspicuous and lamentable instance of the failure of a uniformity scheme is now to be seen in Minnesota, in the case of the Merrill text-book law, passed by the legislature of last winter. This law gave to one person, styled a "contractor," the monopoly of furnishing all the text-books used in that state, for a period of fifteen years, at a fixed price. The law provided that the books should be selected by the contractor, subject to the approval of a "commission," consisting of the state superintendent and two other persons. It does not appear to have met the approval of the mass of the people of the state; the State Teachers' Association at its last annual session declared emphatically against it; the contractor was unable to furnish books as speedily as he promised, which resulted in a great lack of necessary books for the summer and winter schools, and he was apparently unable to obtain many first-class books at all, at the low prices paid, and with a market rendered very uncertain by popular dissatisfaction. Meantime, not only many of the cities of the state expressly exempted from the operation of the law by one of its provisions, but also large numbers of villages and country districts are said to have adopted the Wisconsin plan of purchase, directly from the publishers, of the books of their choice, at prices as satisfactory, upon the whole, as those of the Merrill law. I am informed that after the most vigorous efforts on the part of the contractor to secure orders for his books, these have, at the end of the first year, been received from only about 130 out of over 3,600 districts, and those confined to some seven or eight counties out of the seventy in the state.

The law is already seen to be impracticable. To the small extent to which it has gone into operation it is positively injurious. It has merely introduced an added element of confusion in the new books put into the hundred or more districts. Besides, in the judg-

ment of the best teachers of the state, the majority of the new books are of an inferior character. It has, moreover, to a considerable extent, injured the schools of the state at large by causing a lack of books therein. In the general excitement and uncertainty local dealers ceased to keep up their stocks, and children went to school either without any books or with those old and inappropriate. Thus it may be truthfully said of the Minnesota schools, so far as books are concerned, their last state is worse than their first, in consequence of the very legislation that was designed to make it better.

In a series of articles which I last summer prepared for the Wisconsin Journal of Education, under the title "The Truth Concerning Text-Books," and which were published in the issues for June, July and August, I endeavored to discuss fairly and temperately the conditions of this whole vexed question. In the second article I sought to show, in particular, why it is that efforts at enforced state uniformity of school books have uniformly proved abortive in other states, and why it is that educational men, who have studied and become familiar with the whole subject, are opposed, on grounds of intelligent conviction, to any more repetitions of the useless, expensive and unnecessary experiment whose inevitable failure they clearly foresee. I beg leave to reproduce here the following paragraphs from the Journal for July. In the mind of the candid and intelligent reader they may appear adapted to meet the charge that the opposition of educational men to this particular mode of text-book reform is captious and unreasonable, or is explicable only on the theory that they are personally interested in "the book ring."

WHY UNIFORMITY LAWS FAIL.

At first sight state uniformity appears a simple, easy, natural way out of the perplexities of the present systemless labyrinth. How easy to end all these ills by a bare law creating a competent commission to select text-books, and forbidding the use of other books than those of the prescribed list? Thus local changes become impossible, itinerant families do not find their school books at a discount in any part of the state, and there is secured the cheapness that comes from special terms made by the state with a publisher or publishers, or possibly from state manufacture of its own books.

The perplexities of teachers and district officers, the complaints of patrons, all disappear in the presence of the simple fiat of the legislative body. There is in this much that is plausible and attractive. The writer confesses that he has himself been strongly impressed by the fair seeming promises of this remedy, and is disposed to regret that the experience of other states shows those promises to be illusory.

All good men must regret that intemperance, dishonesty, uncharitableness, selfishness, and other crimes and weaknesses of humanity cannot be banished from society by the simple means of a legislative enactment. It were profoundly to be desired that a "Maine Law" *would* blot out the traffic in and use of intoxicating liquors, and that a few words in a statute *would* greatly benefit the public school system and the state by securing the full and regular attendance of all pupils, or by furnishing uniform, satisfactory and cheap text-books to the same. The disagreeable fact is that legislation to secure such results has been abundantly tried and found wanting. Experience shows that statutes do not make men temperate, do not bring into the schools the vagrant children of the vicious or careless, do not remove the evils incident to the present common method of supplying and using text-books. Substantial reforms in all those things must come only through voluntary individual and associative effort, and through aroused and modified public sentiment. In this country, at least, there is no other course. Legislation may crown a reform already completed in public sentiment, but as preceding public sentiment it is generally of little value, and often a positive harm.

Investigation and reflection show the following among the reasons for the failure of laws aiming at State uniformity of text-books:

(1) It has been found impossible to enforce them. School boards have been to a great extent unwilling to surrender their independence in the important matter of selecting books. Cities almost universally insist upon the privilege of local selection in this as in the matter of teachers, etc. Hence, in states where uniformity has been attempted by legal enactment, cities are usually exempted from the obligations of the law. In like manner villages, which also generally have intelligent and competent school boards, often insist upon a similar independence. The cities and villages have either taken no part in the effort to secure the law, or were from the first opposed to

it. They are satisfied with the existing arrangement. Text-books and courses of study have been intelligently adopted. There is little or no lack of local uniformity. The children are all supplied with appropriate books. There is substantially no complaint. Why should they sacrifice their independence, lose a considerable amount of property now in satisfactory use, and be compelled to procure a general new supply of books selected by a distant authority which is ignorant of their various local circumstances and needs? They feel that the law is arbitrary, un-democratic, un-American, unnecessary, impertinent. There is grave doubt of its constitutionality. The result is a feeling of indignant opposition prevailing many of the communities not exempted from the operation of the law, and a quiet determination to ignore it. Hundreds of persons in these places, who theoretically may have favored the law before its passage, lose all their interest in it when its practical demands are immediately before them. They have no desire to pay money for what after all seems no local gain.

With cities expressly exempted by a provision of the statute, and the majority of villages quietly ignoring the law, many adjacent country districts pay no attention to it, preferring in like manner their independence and exemption from the immediate pecuniary loss involved in the change. No one cares to bring an action under it and the districts go on as if it did not exist.

On the other hand, perhaps half or one-third the country districts and some of the smaller villages, resolve to comply with the law. The old books are discarded, the new ones "introduced,"—i. e., half the children bring the authorized books, one-fourth bring the old books, and the remaining fourth bring—no books. The change is a heavy tax upon the poor people of the district—one many can ill meet, and some absolutely not meet at all. Meantime the reaction of sentiment sets in. Newspapers are denouncing the legislation. It is seen that the cities are exempt, the villages in a state of quiet but defiant antagonism, many country districts doing nothing, and the law falling into general contempt.

The result is a pecuniary tax partially imposed upon some hundreds of country districts least able to bear it, contempt for and violation of a well known law of the state, and "confusion worse confounded" in the very matter for which the aid of the law was invoked. Is not the testimony of President Phelps precisely in har-

mony with this natural result? He says: "The attempt to force uniformity by legislation in Minnesota some eight or nine years ago resulted in utter failure, and left the schools in a worse state than it found them."

(2) Add to this the fact that nearly all educational men are, on grounds of intelligent conviction, opposed to enforced uniformity, and another obstacle is raised against the success of such a law. Educational men believe that only through freedom, diversity and competition are the best results attained. They hold that to restrict the various classes of schools, from the mixed one of the country, to the thoroughly graded one in village or city, to the use, for a series of years, of a particular set of books, would be detrimental to the true interests of those schools. They argue that the admirable results of the public school system of the northern states are largely due to the local freedom allowed in methods of instruction, courses of study, text-books, etc. They contend that the superiority of American text-books, school furniture and other apparatus, is due to the large demand and close competition that have existed under our system of local freedom. They believe that while this freedom has brought forth some undesirable results, the fruits have, upon the whole, been more abundant and satisfactory than would have been possible under any system of restriction. They further believe that the very abuses of freedom do not need the hand of restrictive or proscriptive law to remove them. They are easily corrigible under freedom itself. They therefore declare that enforced state uniformity of text-books is both unnecessary and unwise, and they confidently assert that their views are supported by the experience of other states and countries.

The objections to a state uniformity law may then be thus briefly summarized:

(1) Cities (which generally have the best schools) must be exempted from their operation. They insist upon preserving their freedom.

(2) Their practice is preferred and example followed by many villages and country districts.

(3) Even in those districts where an attempt to obey the law may be made, there is no way to compel parents to buy the prescribed books, so long as some of said parents are too poor to do it, and others too independent or too indifferent.

(4) An attempt to inflict fines and other penalties is opposed to the habits and instincts of our people, provokes ill feeling and hostility in every case, tends to lessen the popularity of the public school system, and must prove wholly abortive.

(5) It is opposed to the free competition that is *ever seeking the best* in matter and methods of instruction, that is the life of the school system, the cause of excellence in school books and apparatus.

(6) It is inconsistent with the variety of needs found in our complex school system.

(7) The uniform experience of several states and countries supports the objections above given.

(8) Educational men are conscientiously opposed to it for the above reasons.

(9) It may be added that it is liable to foster jobbery and corruption from the vastness of the pecuniary interests involved in either state selection, state purchase, or state manufacture.

In view of the facts and arguments above presented, and at the end of another year's re-consideration of the whole subject, I cannot better sum up my recommendation for the wise use of existing means to remove evils, without additional legislation involving expensive changes of more than doubtful utility, than in the words of the following communication, which, in advance of the publication of my last report, long delayed in the hands of the printer, I deemed it my duty to address, semi-officially, to the legislature of 1877. That this communication was the immediate and sole cause of a gratuitous and combined personal attack upon the integrity and motives of its author by the three daily papers of the capitol, although endorsed generally by the press of both political parties, and, it is not perhaps too much to say, unanimously by educational sentiment, makes me somewhat desirous that it should appear and be preserved in this official and permanent form:

IS TEXT-BOOK LEGISLATION NEEDED?

To the Legislature of Wisconsin:

In view of the present agitation of the "text-book question," and of the fact that my opinions and recommendations respecting the same are to some extent misunderstood and misrepresented, I beg to call the earnest attention of your honorable body to the following facts:

1. An existing law of the state, passed two years ago, allows any school board to purchase text-books, and, as the property of the district, town, village or city, to loan free, rent, or sell the same at cost, to the pupils in the schools. Books can be purchased direct by from the publishers, through their branch houses in Chicago and Milwaukee, *at a discount of 40 per cent.* from present retail prices.

Two hundred and sixty-seven districts in the state were reported to me as purchasing books under this law last year, and others have been more recently reported as following their example since the date of the last official reports. Of the 267 reported as purchasing, 137 loaned the books free, and the others either sold or rented the same.

The plan of district purchase under this law is giving excellent satisfaction, in all cases, so far as I can learn, and is rapidly spreading and becoming popular.

2. Besides the large saving in cost, by district purchase direct from publishers, uniformity in the school for which books are thus purchased is the natural and inevitable result.

3. An existing law allows any school board to adopt a series of books for the school or schools under its charge, and provides that after such adoption no change shall be made within three years.

I respectfully suggest that the two laws above mentioned are all the legislation in this direction needed in the interests of the schools and the people. Under these simple and wise laws the best school books in the world can be had at a very reasonable price, and absolute uniformity to the extent really essential — in the school or schools under the charge of a single board — can be easily secured.

After a very careful study of this text-book question I am convinced that it is wise to seek neither enforced state nor county uniformity. I recommended in my first annual report, and still favor, township uniformity; but this only because it would be a step towards the general adoption of the township system of school government, under which the schools of a township are managed by a single board — a very great improvement, in the judgment of nearly all educational men, over the present comparatively inefficient district system.

I am opposed to state uniformity for the following reasons: (a) A law to secure it could be only partially enforced, and a law partially enforced is generally worse than no law. This is abundantly proved by the experience of several states where uniformity has been tried and has failed—as in Vermont, Missouri, Minnesota, California, and other states. (b) If enforced, the special needs of particular schools and classes would not be so well met. (c) If enforced, it would provoke and alienate many, and tend to lessen the popularity of our school system. (d) If enforced, it would destroy the value of at least half a million dollars worth of books now in use. (e) If enforced, it would suddenly impose upon the people the burden of at least another half million for the new books they must purchase to replace those outlawed. (f) If enforced, it would prevent for a series of years, the adoption, by any school board in the state, of any improved books, cause our schools to fall behind those

of other states, and when the inevitable time for a change came, again destroy at a blow a vast amount of property in the hands of the people.

In the name of the professional teachers and superintendents of the state, who are almost unanimously opposed to enforced uniformity—as honorable, disinterested and intelligent a class of citizens as Wisconsin has; in the name of the great majority of the other school officers, who have not asked that one of their most important duties should be taken from their hands, as incompetent to perform it; in the name of the schools of the state, whose interests we should be very cautious not to rashly imperil, I respectfully and earnestly suggest that the laws we now have, *if used*, are all that are needed to enable the people in every district, village, and city to satisfactorily decide for themselves the question of text-books, as they decide the questions of school buildings and teachers, of libraries and apparatus. Let us intelligently act under the laws we have, rather than hasten to create others whose success is more than doubtful.

EDWARD SEARING,

MADISON, Feb. 21, 1877.

Supt. of Public Inst'n.

THE TEXT-BOOK CONSPIRACY.

For a succinct history of the remarkable but fruitless effort made by certain interested parties to secure for themselves, for a series of years, the monopoly of publishing and furnishing the text-books used in the public schools, I respectfully refer to the Journal of Education for April last. The facts therein given ought, in the interests of education, to be well and generally understood by the people of the state. The public school system cannot be too zealously guarded from personal and mercenary designs.

In view of the not improbable revival hereafter of the defeated scheme of last winter, I deem it in the interests of education to present here the following letters from a few of the most eminent and respected educational men of the state, giving their views in regard to that measure. A very large number of other similar expressions from like sources might be added, but these sufficiently indicate what appeared to be the universal sentiment in educational circles:

From Hon. J. G. McMynn, former Superintendent of Public Instruction.

RACINE, WIS., March 17, 1877.

MY DEAR SIR: When the preposterous nonsense, embodied in a bill for a law to make the State the publisher of school books, was introduced into the legislature, I did not suppose that such a proposition would receive a dozen votes, if taken by yeas and nays. I was disposed to think that you had shown a want of discretion by

ormally noticing the absurdity. I find, however, that you knew more about the legislature than I did, and that your circular of the 21st ult. was called for by the interests of education.

Of course I am not ignorant of the vagaries in which well-meaning men will indulge in connection with matters of an educational character, but I must say that this idea of the state publishing our text-books is the strangest to which my attention has yet been drawn. I do not believe that it can be met by argument. It was never reasoned *into* any mind possessed of common sense, therefore it cannot be reasoned *out*. It is one of those hallucinations that must be endured until contempt and ridicule shall dispel it. It may be well enough to call attention to the petty jobbery, the corruption, the disregard of local school government, the endless waste of money and books which would be the necessary *outcome* of the proposed measure, but it seems to me that this is hardly necessary. The hard common sense of our people will shiver it, and I do not think it will make its appearance again in our legislative halls. I know you can point to Minnesota, and say, we can not trust the common sense of the people—but I say we can. I predict that Minnesota will repeal the law next winter.

I am very truly yours,

JNO. G. McMYNN.

From President Chapin, Beloit College.

BELOIT, March 3, 1877.

DEAR SIR:—I was not an uninterested observer of the school book controversy. I looked over the bill as brought into the legislature with some care. That the state should undertake to set up a book-publishing establishment is so at variance with accepted principles of political economy, and involves such restrictions on the freedom of private judgment and on the changes necessary, if our schools are to keep in line with the advancement of science and learning in future, that it seemed to me the measure could find little support. I was surprised that so many sensible men were blinded to its meaning and import. The measure has failed now, but there are signs that it may be brought up and pushed hereafter. I am with you in your seasonable opposition to it now and always.

Very truly yours,

A. L. CHAPIN.

From Hon. J. L. Pickard, former Superintendent of Public Instruction.

CHICAGO, March 5, 1877.

DEAR SIR:—As one still interested in Wisconsin schools, permit me to express my thanks for your manly and unanswerable argument against state uniformity in text-books. See my first report for evidence of my sincerity in this matter. Yours truly,

J. L. PICKARD.

From Prof. S. S. Sherman, Normal School Regent, Milwaukee.

MILWAUKEE, February 28, 1877.

• DEAR SIR:—I have just received and read your communication to the legislature on the text-book question, and I cordially endorse every word of it.

3A—SUPT.

[Doc. 16]

Your objection (b) "If enforced, the special needs of particular schools and classes of people would not be so well met"—is particularly applicable to our large graded schools; and if the proposed bill is to become a law, it must affect disastrously the educational interests of this city, unless Milwaukee is exempted from its operation. Very truly yours,

S. S. SHERMAN.

(From President Angell, University of Michigan.)

UNIVERSITY OF MICHIGAN,
ANN ARBOR, Feb. 23, 1877.

MY DEAR SIR:—Let me express my most hearty approval of your circular, opposing the legislation to secure state or county uniformity of text books. A bill is before our legislature to secure uniformity. I think it will fail to pass. Your reasons are unanswerable.

Yours truly,

J. B. ANGELL.

(From Prof. Robert Graham, Oshkosh.)

OSHKOSH, Feb. 22, 1877.

I agree heartily with you in your strong and convincing presentation of the text-book question. I fear any such legislation as proposed would seriously embarrass the cause of education in this state.

In conclusion, I would suggest that it is possible to frame a practicable law to secure uniformity of books in the schools of the state, if such uniformity were considered in itself desirable. From the experience of other states where uniformity has been attempted, as well as from the nature of the case, I am convinced that a uniformity law declaring non-compliance a "misdemeanor," punishable by fines, must prove, in this country, like compulsory attendance laws, a dead letter. The causes that would lead people to disregard it are numerous and everywhere constantly operative, while the machinery for enforcing it is weak, because wholly in the hands of neighbors and friends of transgressors. If, however, it were made one of the conditions of the distribution of public money to a district that none but the regularly authorized state books should be used in its school, it is possible that, if the books were judiciously selected, uniformity could be readily and promptly secured. In my judgment it can be secured in no other way.

Yet, as has already been made evident, it is the very general opinion of the best educational authorities, that if uniformity were really secured and maintained, more would be lost than gained, in educational results.

Hence, all things considered, it is believed that, through con-

tinued local freedom, with district purchase and free books expressly authorized by law, and found to be satisfactory in practice, Wisconsin has really solved the text-book problem.

HIGH SCHOOLS.

Official reports have been received this year from fifty-seven free high schools, an increase of thirty-seven over those reporting last year. On the first day of December, when the payment of the appropriation was due, it was believed that only fifty-six schools had reported, and the certificate of apportionment was made on the basis of the reports and claims of that number. The aggregate amount due, had the appropriation not been limited by law, was found to be something more than \$27,000. As the annual appropriation is limited to \$25,000, a pro rata distribution of that sum was made, yielding 92 (and a fraction) per cent. of the amount otherwise due each school. Several days afterwards it was discovered that the Burlington High School had reported through the county superintendent, although it had not sent to this office the usual special report required, and had consequently not shared in the distribution, to which it was legally entitled. After stating the circumstances to the secretary of state, he informed me that he would, on receipt of my special certificate, draw his warrant in favor of the Burlington school for the amount to which it appeared to be legally entitled. This would be so much in excess of the limits of the annual appropriation, but less than a third of that appropriation had been called for and paid the previous year. Thus is accounted for the aggregate of \$25,460.85, paid to the fifty-seven schools, as shown in the table of statistics, elsewhere printed.

The law appears to command continued favor, and to be exciting a salutary influence in all portions of the state. The following are specimens of testimony coming from many counties. The superintendent of Vernon county says in his special report:

“The free high schools at Viroqua and Hillsborough are well attended and are supplying a need long felt in the educational interests of the county. Students now have an opportunity of receiving competent instruction in the higher English branches, and may prepare for admission to the classical course at the university at these high schools.”

The superintendent of Barron county says, in his special report:

"At the last annual town meeting the people of the town of Sumner organized, under the new high school law, the high school district to embrace the whole town. The first term of thirteen weeks commenced early in September, 1877. Mr. W. A. Synon was engaged as teacher. The people had long felt the need of something above the common school in which those who desire to become teachers could qualify themselves for their chosen work without the expense attending a residence away from home. The enrollment is twenty-three, and I am gratified to be able to report the school under Mr. Synon's charge is fully meeting the expectation of its friends."

President Albee, of the Oshkosh Normal School, writes, respecting the high schools reporting this year:

As I examine the list, a number of this class of schools appear, each of which has employed teachers of decided merit during the last two years, at salaries sufficient to retain them for a series of years, where previously the remuneration was so meagre that permanence in the teachers meant mediocrity. Other communities were also subject to great fluctuation in financial sentiment; at one meeting voting a fair sum for the support of a good school, and in the following year largely diminishing the appropriation because of a passing whim, or an accidental preponderance in the meeting of the ignorant or narrow-souled element. This class of districts is likely to become more regular, as well as more liberal in their appropriations, under the stimulus of the state appropriation being proportioned to local expenditure.

As illustrating the influence of high or graded schools upon the county schools of the neighborhood, the following from the superintendent of Monroe county is pertinent:

"There has been improvement each year in the high schools of Sparta and Tomah. These, with the advantages now offered by the graded schools at Norwalk, Wilton, Kendalls and Glendale, give better opportunities for instruction in our own county than formerly. These schools exert a material influence upon the character of the schools in a circuit around them, as nearly all of the adjacent schools are taught a portion of the year by teachers that have only such scholarship and training as they have been able to obtain at some one of these graded schools; and I am glad to be able to report that each of these schools is in charge of a thorough, earnest and competent teacher."

The above is an illustration of the truth which I have from the first sought to impress upon the friends of education in the state, and to have embodied in legislation. This truth cannot be better expressed than in the following words which were quoted at the

end of the article on "township high schools" in my second annual report, from the educational department of the *Atlantic Monthly* for February, 1876:

"The only conclusion, then, is that the state *must* supply training agencies for its teachers, and there is no agency that can meet the case but the township high school system. In the immense majority of cases the teachers of a district are and must be from the inhabitants of that district. The fact that they teach at all shows that their means are limited, and therefore their training must be brought home to them. They cannot afford to go to it."

Respecting the need of township high schools, I add simply the following from the special reports of two intelligent local officers:

From Superintendent Richmond, Green county:

"So much of our time for the past two years has been given to institute work that we have not been able to do much towards establishing free high schools, although we need them very much and ought to have them. Could we have a free high school in every township we would then have practically established the town system, and that, too, on a high plane."

From Superintendent Lunn, Sauk county:

"Several townships in this county are well adapted to crowning their several schools with the advanced course which this law alone proffers; but the project wherever broached has been looked upon as a new scheme to bleed an already overburdened public."

The latter words imply two facts that may explain the conservatism of rural neighborhoods in this matter of the township school: (1) the "scheme" is not even yet understood; (2) the people are not prosperous. There is need, accordingly, of patient and constant efforts to explain the township plan, and there is need of awaiting the return of a greater degree of general material prosperity among the people. Meantime, let the efforts of superintendents be to thoroughly enlighten a single township or a county, presenting especially favorable conditions, and to start there a school that shall be, to the others, an *example*. This is easier than scattering efforts at random over the entire county. But, as said in the last report: "It cannot be denied, however, that the inauguration of the township system of school government, in the place of the present system of independent districts, would greatly facilitate the organization in rural neighborhoods of the class of schools under considera-

tion. The district system rests like an incubus upon progress towards a better gradation and division of school work, as well as towards the satisfactory solution of several other important questions in common school management."

Meantime, for the schools sharing in the appropriation have become now considerable in number, there ought to be devised a thorough system of inspection, which should allow none of the unworthy to receive an undeserved portion of the state bounty, and which should serve, for both teachers and pupils, as a constant stimulus to the best endeavor.

SCHOOL SAVINGS BANKS.

It has long been my belief that the public school system ought to be more potent for good than it now is in the direction of moral influences and good habits. Judging from the school code, the sole object of the system is to give formal instruction in certain branches of knowledge—orthography, reading, writing, grammar, geography, arithmetic, etc. But a mere knowledge of these things is by no means enough to qualify for right living and good citizenship. It is right impulses and good habits, even more than the mastery of the arts of reading, writing and numbering, that make good citizens and successful men and women. The safety of the republic will not be guaranteed by the total banishment of mere illiteracy.

There is a habit, in a high degree conducive to individual and national prosperity, which it seems to me might be easily and largely fostered by the system of public instruction. I refer to the habit of saving, based on a due knowledge of the value and use of money. The American people are especially a prodigal and wasteful people. The great natural resources that have been at their command, and the ease and rapidity with which they have hitherto acquired money, have made them extravagant, and thoughtless of the future. With the frugal, thrifty and saving habits of the French, our people would to-day be the richest and most prosperous people on the globe, whereas now private and public debt weighs like an incubus upon the whole country, and pauperism is increasing more rapidly than in any other civilized land.

I have for some time regarded with interest the systematic efforts

to form saving habits in the young, now being made in the public schools of Great Britain, Belgium and France, and, as giving some information on this subject, I call special attention to the following extract from a valuable paper on "Savings Banks," read at the recent session of the Social Science Convention at Saratoga, by John P. Townsend, Esq., of New York. To teach children the value of money, to induce the desire and habit of saving, and to practically acquaint them early with some business forms and usages, must certainly be recognized as legitimate school work; as legitimate as instruction in theoretical arithmetic or book-keeping, by the aid of which the business of the world is so largely conducted. That the disposition to save, as all other dispositions and habits, can be best cultivated in the young, is an educational axiom. That it is desirable for a people to possess habits of thrift will be questioned by no one. It may be doubted whether any other quality ranks higher among the elements that make up really good "citizenship" than that known as "thrift." The man who, for the sake of accumulating property, practices self denial, and puts weekly or monthly into a savings bank his surplus earnings, is in general a good citizen. He may not be a scholar; he may even be illiterate, but he will pretty surely be industrious and law-abiding. More useful as a citizen is the illiterate but thrifty accumulator than the thriftless prodigal, who is well versed in the "three R's."

Whatever tends to enlarge in the direction of good *conduct*, truthfulness, industry, temperance, frugality, courtesy, etc., the present narrow and almost exclusively intellectual training of the schools, is to be heartily welcomed by all good men. The establishment of school savings banks on some secure basis, and the general cultivation thereby, in the young, of a habit upon which individual and national prosperity so largely depends, would I believe, have the fullest approval of thoughtful men.

Mr. Townsend, in the paper above referred to, says, in reference to teaching saving habits to the young in the public schools, as reported in the *Banker's Safeguard*:

"The penny bank system of Great Britain, which has been extended into the schools there, as well as into Belgium and France, cannot be too strongly recommended for adoption in this country. In a paper read by Mr. William Meikle, actuary of the Security Savings Bank of Glasgow, before the National Association for the Promotion of Social Science, three years ago, he says: 'A remarkable ex-

periment for teaching the young to save has been introduced into the public schools of Belgium. It originated with Mr. Laurent, professor of civil law, in the University of Ghent, whose writings on the subject obtained a prize of £400, as being the best treatise, or the best invention capable of improving the physical and intellectual condition of the working classes.' He maintains that the best means of causing the spirit of economy to penetrate the habits of the people is to teach it to their children and make them practice it.

"Nothing is easier than to inspire in the young a taste for saving. This can be best accomplished in the public schools, where the managers and teachers have constant opportunities of enforcing and illustrating the advantages of saving, and where facilities can easily be afforded for carrying out the lessons of economy by means of penny banks carried on in the schools. This has been done in Belgium with singular success. Out of 15,392 pupils in the town of Ghent, no less than 13,032 are depositors in the savings bank, and they have to their credit \$92,560, an average of more than \$7 each.

"The managers testify that the system has already produced a marked effect on the social and moral life of the working classes of Ghent. The experiment is being extended to hundreds of other towns, and has created great interest throughout Belgium, in France, and the United Kingdom. I cordially commend the system to the attention of school boards and teachers, and can assure them that directors of savings banks in this country will cheerfully aid their endeavors." So says Mr. William Meikle, actuary of the Security Savings Bank of Glasgow.

"He further says: 'As a means of still further encouraging young people to save, the school boards of Belgium have arranged that their prizes to meritorious pupils shall consist, in whole or in part, of a savings bank book, inscribed with the pupil's name, and containing a small sum of money, which is not to be withdrawn till after a given time.'

"I learn by letter recently received from M. A. de Marlørce, of Paris, that France has already more than 230,000 saving scholars in 3,200 schools.

"No people need to be taught thrift more than the poorer classes of this country; on account of the ease with which money is obtained in ordinary times, owing to well-known causes, no nation, probably, is more extravagant and prodigal in expenditures, and in times like the present, inconvenience and suffering are great. Having sung all summer, the winter finds them destitute, and without friends to succor them. But their more provident neighbors owe something to their own reputation as good citizens, and should endeavor to teach and assist them in a proper way.

"Instead of soup houses in winter, let us open penny banks in summer, and by the aid of missionaries properly selected, the systematic distribution of tracts in workshops and dwellings, instruct these people how to help themselves by saving their pennies, instead of spending them in drink shops and for useless finery. How

many pennies and even dollars are annually thrown away in bar rooms and beer gardens the data is not at hand to determine, and the receipts by the government from taxes on spirits and malt liquors give a faint idea.

"The plan of establishing school penny banks is very simple, and could be put in operation by any board of education in the large cities, and by trustees and school districts in the towns and villages, without expense. An hour one day in the week might be set apart for instruction and practice in the lesson of thrift. Let a book large enough to contain the names of all the pupils in a given school be provided, ruled in twelve vertical columns for the months, which are to be subdivided into four or five for the weeks, with inter-columns for dollars and cents; this is for the register to be kept by the teacher. Cards, to be folded once like the covers of a pass book, and ruled like the register, are also necessary for each depositing scholar. Enter the deposits in the school ledger, and the corresponding amount in the depositor's book, which the pupil is to carry home with him. This comprises the needed stationery, barring pen and ink.

Let the amount received each day be deposited in some savings bank, to the credit of the school, and when the deposit of any pupil amounts to say three dollars, let an account be opened in his own name, and a book be given him by the bank, charging the amount to the account of the school, and by the school against the pupil in its ledger; the little card is still kept to enter the pennies on, and the account runs on as at first.

"The pupil is to receive no interest until he opens his account in the bank, but the school itself receives interest on the gross amount to its credit, which will pay the expense of stationery, school ledger and card pass-books; should anything be left over after paying these expenses, it might be disposed of by vote of the pupils.

"Parents will very soon become interested, and not only add extra pennies to their childrens' deposits, but be induced to try the experiment on their own account, by making deposits in the savings bank for themselves; once the habit is begun, it tends to increase as time goes on, and it is reasonable to suppose that it will not be long before the community will begin to feel the effect, to the lessening of its taxable burdens for the support of the wretched and destitute.

"The experiment is worth trying, why not put at it once in practice."

To show how simple is the administration of the system in the schools of France, I subjoin the following, translated from the French by Hon. S. T. Merrill, of Beloit, and printed in the *Safe-guard Almanac* for 1877:

"After having made proper arrangements with the nearest city or village savings bank, the teacher informs his scholars that he is ready to receive their savings, however small they may be, and that on the first day of every month all deposits amounting to one

franc, or to even francs, will be deposited in the city savings bank to the credit of the pupil thus depositing, who will then receive a bank book in his or her own name.

"On a fixed day of every week, at the commencement of the school the instructor announces 'the exercise of savings' (*exercice de l'Epargne*.) Every sum, small as it may be, he records in a special book called the Register of the School Bank; each page of which, ruled with twelve vertical lines for the months of the year, and thirty-one horizontal lines for the days of the month, is apportioned to some *one pupil's* account. Detached sheets ruled in the same way are also provided, so that each scholar may have a duplicate of his or her account.

"The book and sheets having been prepared, commonly by the pupils themselves, each scholar, in turn, as the roll is called, presents himself or herself before the teacher's desk, and there deposits any sum which he or she wishes to put into the School Savings Bank. The instructor, in the presence of the one depositing, inscribes the amount in the register on the appropriate page in the square that indicates the date of the transaction, and at the same time he makes a like entry on a separate sheet which he delivers to the pupil. This duplicate sheet is a double guaranty both for the parents and the teacher. Such is the plan pursued in each school; equally easy and simple are the transactions with the large Savings Bank.

"On the first of every month the instructor adds the small amounts inscribed on each page of the register in the columns for the month just passed. If the sum of any one does not reach one franc, the number of centimes or fraction of a franc is placed at the top of the column for the next month, to be added to future payments. When the total exceeds a franc or even francs, he makes a memorandum of the whole or even francs opposite the name of the scholar by whom they have been deposited, and carries the fraction, if there be any, to the top of the next column, and so on through the book. This done, he takes the aggregated francs and his memorandum to the large savings bank.

"The cashier, having counted the money and found it to correspond in amount with the total of the teachers' memorandum, inscribes the deposits, each scholar's separately, in bank books appropriated and belonging to the pupils depositing in this way through the agency of the teacher.

"These individual bank pass-books are kept by the instructor so long as the owner remains in school. However, the next day after each new deposit is made in the large savings bank, the scholar is permitted to take his book home for the inspection of his parents, but it must be returned to the custody of the teacher promptly the next day thereafter.

"When a pupil leaves the school, his or her book is delivered to his or her legal representative, together with any money that may be in the school savings bank at the time; for all which a receipt is given, written on the page of the register whereon is the scholar's account. The instructor notifies the large savings bank that such a

pupil has left the school, and that his bank book has been delivered to his legal representative."

Besides the peculiar instruction and discipline qualifying for business life, involved in the operation of school savings banks, I suggest that instruction in a kindred subject of practical value, namely, book-keeping, ought to be universally given in the common schools. It is now neither in the list of branches required to be taught in the schools, nor one of those in which applicants for certificates are required to be examined. Yet a knowledge of the forms and processes of single-entry book-keeping would be of practical use to nearly every citizen. I venture the assertion that it would be of far more value to him than the very imperfect instruction now given in the constitution of the state and nation — an instruction required by law, but adding, I believe, little qualification for the ordinary, every-day duties of life.

DEFECTS IN THE STATE SYSTEM.

While seeking to make the fullest and best use of the educational machinery I found in the state, and of which four years ago I became a part, I have at the same time felt it my duty to point out how essentially defective, in certain respects, this machinery appears to me to be, and how inadequate to the accomplishment of the best results. I briefly recapitulate points and recommendations made in previous reports, and especially in that for 1875.

The transcendent interests of common school education are suffering from want of more permanent, intelligent and authoritative supervision. The University and the Normal Schools are intelligently controlled and developed by special boards appointed for the purpose, composed in the main of men qualified for that trust. The element of permanency characterizes to a considerable extent the personnel of these boards, each member being appointed for three years, while the average term is made much longer than that by reappointment, and the terms of only one-third annually expire. These boards appoint those who have immediate charge of the schools — the presidents and professors. The public schools of Milwaukee (as an example among cities) are in like manner managed by a board of education, which appoints the teachers and

places over them a competent superintendent. The elements of intelligence, permanence and abundant authority are therefore to be found in the management of the public schools of this city, as in the management of the State University and Normal Schools. The result is satisfactory. The teachers are competent, all efforts are well directed, and the money of the people is not wasted.

But the vast majority of the children of the state are educated in the schools of country and village districts, for which there is a very inadequate system of supervision, and in which the results are *far from satisfactory*. The state provides for these, in the first place, a state superintendent, who is elected biennially, by the people, after being nominated by a political convention, as other state officers are nominated. In the words I used in a former report (1875), "He may or may not be the man best fitted for his position. He may or may not have had antecedent experience qualifying him for his peculiar work. He is selected by a convention which is largely governed by considerations of political expediency. His geographical position in the state is often quite as much considered as his educational position in his profession. Moreover, neither does faithful service insure retention in, nor inefficient service dismissal from the work, well or ill done. He shares the fate of the "party" to which he belongs. The transcendently important trusts temporarily entrusted to his care demand long and anxious study; demand the slow working-out of far-reaching plans; demand acquaintance with men upon whom he can rely for faithful aid, demand a knowledge of educational systems and measures of other states and countries: but all this goes for naught in the biennial scramble of parties for place."

Then, again, the state provides for the above named schools a system of county supervision, with local officers nominated by political conventions, and elected biennially in the general state elections. There is no certainty in any county that the fittest, or even a fit man, will receive the nomination for the extremely important office, and, as a simple matter of fact, *persons wretchedly unqualified are often both nominated and elected*. As in the case of the state superintendent, political expediency and geographical considerations largely govern the conventions that select the two or three candidates for whom the people are to vote. Add to this the fact that the salary of the local superintendent averages much less than

those of the other county officers, and the incompetency of some, and the necessarily limited work and influence of others, are abundantly explained. Having closely watched the results of the last three biennial elections of county superintendents, I am prepared to say the present system is far from being the best that can be devised. I go further, and say that the diminishing salaries and the growing dissatisfaction with the results of such an election system as ours, foreshadow its repeal in several states. Far better would it be to modify the system in our own, preserving its valuable features while eliminating its weak ones, than to repeal it, as Michigan has recently done, and return to the still more inefficient system of town supervision.

The remedy that is needed is a separation of our whole educational system, to the utmost practicable extent, from political influences, hazards, and changes. I again renew my recommendation for some radical modifications that shall give to school supervision the greater intelligence, uniformity and efficiency it so largely needs. It would be a gain to elect the state and county superintendents in the spring, at the time judges are elected, and to extend their term of office to four years. It would be a great gain if each county superintendent were elected by a special convention of the school officers of the county, as in Pennsylvania. But I believe that the highest and most satisfactory results would be reached only under such a system as was recommended in the report for 1875, whose features are briefly repeated as follows:

(1) A state board of education, like the present university and normal school boards, consisting of eleven members, nine appointed by the governor, with the consent of the senate, the term of one-third of whom shall expire annually or biennially; the governor and state superintendent to be *ex officio* members of the board.

(2) A state superintendent appointed by the board, for a term of four years, and to serve as secretary of the same, his duties in general being the same as now.

(3) County superintendents appointed by the state board, with the approval of the county board of supervisors, for a term of three or four years, and to be paid by the state a salary fixed by statute, graded in just proportion to the extent of their work.

(4) The township to be the smallest unit of territory in school government, the schools of the same to be under the management of a township board elected by the people.

(5) Each township, so far as practicable, to have a central high or grammar school, made obligatory by law; this and the primary schools of the township to have well defined courses of study, uniformity of text-books, and uniformity in methods of instruction and discipline.

(6) To make the schools as nearly uniform as possible, in character and length, and to carry out to a judicious extent the principle that "the property of the state shall educate the children of the state," a uniform state tax to be imposed for the support of schools, aggregating annually, with the income of the school fund, not less than one-half the cost of the schools.

(7) Uniform examinations throughout the state, for teachers of the same grade, to be the rule.

(8) A system of township libraries, the joint creation, like the schools, of state and local action, the books to be selected from lists approved by the state, and to be purchased by the state on low terms, by contracts with publishers.

More or less of the above features are to be found in the school systems of several other states, educationally well advanced. Experience abundantly shows their value. For example, in Massachusetts and Connecticut there is a state board of education appointing its secretary, who performs the duties of state superintendent; in Pennsylvania, the superintendent of public instruction is appointed by the governor, and confirmed by the senate, for a term of four years; in Massachusetts and Pennsylvania is found the township instead of the district system of school organization; in New Jersey, county superintendents are appointed by the state board of education, subject to approval by board of county freeholders; in Pennsylvania, they are elected by county board of school directors; in about twenty-five states there is a state tax for school purposes, etc. The more permanent, uniform and effective supervision found in the above states is nevertheless not equal to the intelligent, systematic and authoritative systems of foreign countries, as Russia, Austria, Holland, the Canadian province of Ontario, etc.

Most earnestly do I call the attention of the legislature and the people, for the last time, to this weakness in our system of supervision. There can be no material advance in the character of the country schools as a whole, until a change is here made. As evidence

of the need, I refer to the report of the U. S. Commissioner of Education for the year 1873, to Francis Adams' *Free Schools of the United States*, to the opinion of other intelligent foreigners who have studied our systems, and to the many distinguished American educators whose views have been presented in my previous reports, and from time to time in the *Journal of Education*. I cannot conceive a more important subject for the investigation of a special legislative committee than this question of the revision of our educational system, and I earnestly renew the recommendation of last year for the appointment of such a committee.

EDUCATIONAL QUALIFICATION FOR SUFFRAGE.

My first annual report contained the following paragraphs:

(6) There is an indirect means by which absolute illiteracy might be diminished, education honored, politics somewhat purified, and the state in general benefited. I refer to the limitation of the privilege of suffrage by an educational qualification. It is admitted that universal intelligence is the only foundation rock upon which to base a democratic republic. In such a government an unintelligent voter—an integral sovereign of the commonwealth without the first and simplest qualification of sovereignty—is an anomaly that should not be permitted. There is no greater, no more dangerous political absurdity than the ballot in the hands of men who cannot even read it,—much less read the laws they blindly and blunderingly aid in enacting and modifying, and the constitution that directs and limits their powers. To convince us of this we need not the examples of Spain, Mexico, the South American republics, and the nearer and even more pitiable illustrations in some of our own southern states.

To secure to the franchise that simplest degree of intelligence which is compatible with wise and honest government, I would not ask that the elective privilege should be taken from any man now possessing it; but I boldly and unequivocally, and emphatically, and with a deep conviction of its eminent justice and wisdom, declare my belief that the state ought to fix a time in the near future after which no more illiterate recruits shall be received into the ranks of its sovereign rulers,—that after such time, no man shall deposit a ballot who cannot read the ballot. This I believe to be due to the cause of good government, due to the interests of education, due as an example to unfortunate sister states, due finally to the example of that Mother of Republics, educated and thrifty New England.

Such a recommendation as the above had, perhaps, never before appeared in a similar report, and it naturally provoked some news-

paper criticism. It has been with gratification, however, that I have since observed many evidences showing that I simply expressed the unspoken thought of thousands of reflective minds. Since the paragraphs were written the same recommendation has twice appeared in the annual messages of the Nation's chief executive, has become a familiar subject of discussion in newspapers, educational journals, in debating clubs, and at the fireside. There is, too, a strong and growing conviction in every intelligent community that a man who cannot read the ballot he deposits ought not to be allowed the legal right to deposit it. It was, however, from the educational point of view that I regarded the recommendation. I looked, and still look, upon an educational qualification for suffrage as tending to diminish illiteracy and improve educational sentiment and educational facilities. I am pleased to call attention to the following words of a distinguished American educator, taken from a paper read by him at the Baltimore meeting of the National Teachers' Association, in 1876, and entitled "The Country School Problem." They embody the first of four "general ideas" for the improvement of the common schools:

"Hereafter let the elective franchise be granted to our youth upon coming to age only on condition of their passing a satisfactory examination before a properly constituted board. Let this examination cover reading, writing, arithmetic, geography, the constitution of the government and American history. Having passed such an examination and given evidence of good moral character, let the name be registered among the voters of the land. Such a requisition as this will at once give the rural school a new function and so deepen the interest in it that all needed improvements will be readily effected. We may not deprive any one who has exercised the franchise from continuing to do so, but the imperative necessity of guarding this sacred trust in some such way in the future, is too apparent to need argument; and well would it have been for some portions of our land if we had years ago entered upon the measure. The circumstances making this a necessity to our political well-being, this is not the place to discuss at length, yet we shall do well to remember that already the great mass of illiterate, uncultured, un-Americanized voters are controlling the destiny of great cities in New England, of whole states in the South, and threaten to overrun our entire Pacific coast. Let us not start back from these sentiments, fellow laborers. This is pre-eminently our work. Politicians will never do it. The movement must begin and be carried forward by the educators of the land, by those collected and represented in this room, by this Association, by the Teachers' Associations of our several states.

"When we come to understand that our work in the common school has such immediate and essential connection as this with the nation's political life, and begin to assert it in the ears of the people, we shall not lack for an audience, and people will not slumber under our preaching. Of course we shall be stigmatized as meddling with politics; but who has a better right — who a more sacred obligation to meddle with politics than we? If now, the more generally acknowledged connection which schools sustain to good order in society, to efficiency in business life, and position in social life, if these vaguely defined, and imperfectly apprehended functions of our schools give them the life and dignity they have, let them be put thus in immediate organic connection with the very foundations of our political fabric — let them be acknowledged as the legitimate and indispensable trainers of our citizen sovereignty, and what may we not hope for them? Parents will foster them as the only means of fitting their children for citizenship, pupils will seek and reverence them as the fountains of their correct political life, politicians will court them and be wonderfully complaisant toward all measures which look to their development."

The following from John Stuart Mill's "Representative Government" has an interest and value in this connection, and I commend to thoughtful attention the whole chapter from which the extract is taken:

"There are, however, certain exclusions, required by positive reasons, which do not conflict with this principle, and which, though an evil in themselves, are only to be got rid of by the cessation of the state of things which requires them. I regard it as wholly inadmissible that any person should participate in the suffrage without being able to read, write, and, I will add, perform the common operations of arithmetic. Justice demands, even when the suffrage does not depend on it, that the means of attaining these elementary acquirements should be within the reach of every person, either gratuitously or at an expense not exceeding what the poorest, who earn their own living, can afford. If this were really the case, people would no more think of giving the suffrage to a man who could not read, than of giving it to a child who could not speak; and it would not be society that would exclude him, but his own laziness. When society has not performed its duty by rendering this amount of instruction accessible to all, there is some hardship in the case, but it is hardship that ought to be borne. If society has neglected to discharge two solemn obligations, the more important and more fundamental of the two must be fulfilled first; universal teaching must precede universal enfranchisement. No one but those in whom an *a priori* theory has silenced common sense will maintain that power over others, over the whole community, should be imparted to people who have not acquired the commonest and most essential requisites for taking care of themselves — for pursuing intelligently their own interests, and those of the persons most nearly allied to them."

CONCLUSION.

The conclusion, then, of the whole matter is this: To materially improve the country schools of the state, there must be (1) a better system of supervision by men and women competent for the work, receiving larger salaries, more secure in the tenure of their office, having more of the skill that comes from special study and experience, and independent of political influences; (2) a better local organization and management of the schools, such as the township system would give, with its fewer and more intelligent officers and its greater concentration and wiser division of effort; (3) a longer annual continuance of multitudes of the schools, and hence, the more permanent occupation of teachers; (4) the organization of township high schools wherever practicable; (5) a well-defined course of study for the common schools, as well as for the high schools; (6) a larger and more uniform attendance of pupils, secured by systematic efforts of local authorities, and made more easily attainable by free books; (7) a larger amount of money for the support of the schools coming directly from the state, so that poorer districts may enjoy advantages more nearly equal to those of richer ones; (8) a system of township libraries that shall aid and supplement the work of the schools; and (9) an educational qualification for the franchise, that shall give political emphasis to the work of common school instruction.

These are the remedies that must be employed, or a safe degree of progress is impossible. They will add somewhat to the cost of the school system, but not beyond even the present means of the people. They will give to that system three-fold greater vigor, usefulness and popularity. No reform can be wrought by ignoring defects, nor by idle praises of popular education in the abstract. Definite ideas of defects must be supplemented by definite ideas of remedies, and those by definite and persistent action. Thus Horace Mann wrought reform in Massachusetts. Thus all great and wise reforms are accomplished.

I am happy to know that in boldly expressing my convictions, in former reports, I have had the cordial support of the educators of the state, of all classes. The records of the State Teachers' Association show that nearly all these recommendations have met the formal approval of that body, after full consideration and discus-

sion. I am happy to know that the recommendations herein renewed have met general favor with the Press of the state, towards which I have the most grateful feelings for its many expressions of intelligent sympathy, both with what I have advocated and what I have opposed.

Not less appreciated have been the many scores of letters from both friends and strangers, testifying their approval of plain speech in setting forth the demerits as well as merits of the existing system of popular instruction. It gives me peculiar pleasure to find among these one from him who is to be my successor in office, and to know that he wrote as follows of the first report, in which my entire policy was presented: "To my mind, it is the boldest strongest and most satisfactory report ever issued from our state department of education. It cannot fail to have a *powerful influence upon the educators among us.* * * You will be criticised for your close analysis of the defects of 'our glorious schools' in Wisconsin; but most of your ideas will finally be embodied in our educational system."

With a profound conviction of the need of universal education among a self-governing people like ours, and with an equally profound trust that the common sense of the people will approve and grant all that is here asked, when the subject is once thoroughly understood by them, I merely invoke continued agitation of the truth, and the continued faith of educational men in its ultimate triumph.

EDWARD SEARING,
Supt. Public Instruction.

ERRATA.

[Being unable, through absence from the state, to correct the proof of the entire report, several typographical errors unfortunately remain, especially in pages xlix to lxiv, inclusive. The more noticeable of these are corrected below.—E. S.]

Page li, 10th line from bottom, for "exciting," read "exerting."

Page lii, 17th line from bottom, for "county," read "country."

Page liii, 8th line from bottom, for "or," read "of."

Page liv, 5th line from top, read "which," before "have."

Page lix, 9th line from bottom, for "that trust," read "the trust."

Page lxi, 7th line from top, for "election," read "elective."

Page lxii, 6th line from bottom, for "Russia," read "Prussia."

DOCUMENTS

ACCOMPANYING REPORT.

REPORTS OF COUNTY SUPERINTENDENTS.

ASHLAND COUNTY.

J. J. MILES, SUPERINTENDENT.

There are five schools in the county of Ashland. Three teachers are employed at \$60 per month, and two at about \$40. Schools will continue for ten months.

There are four male teachers and one female. Average attendance from 30 to 40 to the school.

The town of Ashland purports to be under the town system of school government. One board controls the schools. We have sub-districts, two school-houses, and one building rented. We pursue the graded system as far as practicable.

The town of La Pointe has only one district, but two departments, one for half-breeds who cannot read or write.

Considering the wildness of the country we have good schools. They are a fair average with ordinary district schools. We have had no institutes, for the reason that there are so few teachers here no one seems to want them.

We have one district that has adopted the free-book system, and I think that it is meeting with popular approval in the district, and gives general satisfaction. All the districts have adopted a series

of text-books in the last year; none had been adopted before. I do not know of any demand for further text-book legislation on the part of the people, and don't think any is needed in the interest of the schools or people.

BARRON COUNTY.

H. J. WHITE, SUPERINTENDENT.

I am aware that my annual report is imperfect in a good many particulars, but it is as nearly perfect as the materials furnished me would admit. An apology would do no good.

I find there are 58 districts in the county, an increase of 8 over last year. It is difficult, if not impossible, to find this information in the reports of the clerks and secretaries. I have obtained it by making inquiries of well informed persons in the different towns. This is no reflection on the school officers, as under the head, "No. of school-houses in the town," only the actual number of houses is given, at least six new districts not being supplied with school-houses. The figures in columns C and D, however, are not reliable.

Four school-houses have been built or completed during the past year, making in all 52, nearly all of which have been built during the past five years. There are two or three dilapidated affairs answering the purpose, temporarily, of school-houses, but with these exceptions the buildings erected for this purpose are creditable structures. The log buildings are hewed inside and out, and but little inferior in appearance and usefulness to the frame houses; while the latter are usually about 20x30 feet on the ground, 12 feet between floor and ceiling, plastered inside, and painted inside and out. They are generally well seated, though there is room for some improvement in this respect. There is usually too little blackboard surface, but this is being remedied to some extent, and by the use of liquid slating a better quality of blackboard is coming into use.

Little or nothing has been done in the way of enclosing school-house sites and beautifying the grounds. I think but three sites are properly enclosed, and not a tree or shrub has yet been planted.

I am satisfied that this subject will receive due attention at an early day. Three school-houses are supplied with patent seats and desks.

Sixty-seven third grade and five second grade certificates were granted during the year; 13 of the former were valid for six months only. At the spring examination no limited or six months certificates were granted, except at the request of school officers; and, as only about 30 schools were in operation at one time during the summer, there was no scarcity of teachers, and but few limited certificates were called for.

School officers have been in the habit of exercising too little discrimination in the matter of wages in favor of the better class of teachers. In some towns the secretaries are instructed to pay a certain sum per month to teachers for the ensuing term. Whereupon that officer proceeds to hire teachers as they present themselves, putting all on the same footing; the wholly inexperienced being paid as high wages as those who have taught for several years and established a good reputation as teachers. This, to say the least, is very poor business policy, and, in my opinion, accounts for most of the incompetency found among those who teach, or attempt to teach our common schools. There is also a tendency to reduce wages to so low rates that the best teachers will be obliged to enter some other calling. There is doubtless room for economy in school management, but if improperly directed it will prove disastrous to school interests.

All the districts in the town of Maple Grove failed to maintain five months' school. This was owing chiefly to the failure of certain non-residents to pay the taxes on their lands in that town. Few districts in other towns maintain school more than five months.

The town of Cedar Lake has been added to the list of towns which supply their schools with books on the free text book-plan; also district No. 2, Lakeland. The town of Sumner supplies its schools with books, but they are not yet quite free; they will be though, I am disposed to think, as soon as the people have an opportunity to vote upon the question. The subject is being favorably considered in other districts and towns. I hear of no opposition to the plan of free text-books among those who have given the matter any thought; and I think its general adoption in this county is but a question of time. Apathy on the part of school officers, and a general dislike to incur a little present expense, I believe, are the only

reasons why the system is not now in general operation. It is, under our free school system, the only satisfactory mode of supplying our schools with the necessary books. With this thought in mind I do not consider any more text-book legislation necessary. Among a number of reasons, which might be given in support of this view, I would mention the following: 1. We now have the best books in the world from which to select. 2. The law permits a change of text books once in three years; whereas under the proposed law no such privilege is accorded to local boards no matter how greatly a change might be desired. 3. It is highly improbable, all things considered, that the books would be supplied at less cost than at present. And, I might add, we have no assurance that school officers or the people would be any more prompt in securing the necessary supplies of books than they now are.

At the last annual town meeting the people of the town of Sumner organized under the new high school law, the high school district to embrace the whole town. The first term of 13 weeks commenced early in September, 1877. Mr. W. A. Synon was engaged as teacher. The people had long felt the need of something above the common school in which those who desire to become teachers could qualify themselves for their chosen work without the expense attending a residence away from home. The enrollment is 23, and I am gratified to be able to report the school under Mr. Synon's charge is fully meeting the expectation of its friends.

BUFFALO COUNTY.

L. KESSINGER, SUPERINTENDENT.

The law requiring the county superintendent to supplement his tabulary report to the state superintendent by a verbal one seems to have had its origin in the conviction, that tabulary reports, aside from their dryness, intricacy and dubious reliability, are at best but very unsatisfactory documents. They are so in many respects, but this is especially the case with regard to the county superintendent. It is true, his visits to his schools are numbered and summed

up in his report, and if he happens to be of an oratorical turn, the number of his addresses may create a sensation, but what he said, and why and to whom he said it, the report does omit to state. And yet that would, in my estimation, be the most interesting part of said address.

Again, it is stated in the report, what text books are used in every town or district, but how they are used no one will become any the wiser from a perusal of said report. It is true that even this verbal explanation is too limited to touch upon all the matters which ought to be mentioned in order to give a comprehensive and correct idea of the condition, progress, and future prospects of the schools of a county. It has, however, the advantage of giving room for general statements not cramped and concealed by red and blue lines and compressed headings.

The general condition of the public schools in this county is favorable; the interest taken in the same by the people is growing and active, and numerous new school houses, some in place of old and superannuated, some for new districts, are at least one apparent proof or testimony of this.

The majority of our teachers are wide-awake to improvements in their profession, and to the elevation of the same to the dignity that properly belongs to it, but which it can only attain by the superior qualifications of its members.

Agitation for new districts has been quite lively during the past year, and will continue to be so as long as the growing wants of a constantly increasing population are not satisfied. One case, which during 1876 has come to your knowledge by way of an appeal, that of a division of Dist. No. 3, of the town of Alma, has now been settled by establishing, as I had indicated in my correspondence, a new district in the northern part of the old district. A new school house in a convenient location is the result so far, and the rest of the business seems to be in a fair way of running smoothly in the future.

In this, my last report to you, I may be permitted to say a word in favor of the county superintendency. I think that it has been the cause of the acknowledged advancement of the public schools in general, and of those in rural counties in particular.

The county superintendent, elected by and for the whole county and for two years, has a more independent and effective position,

than a man elected by a single town and for one year could ever maintain, and his influence and his power in the matter of granting certificates will naturally compel teachers to heed his advice. Regarding his counsels to school districts, and his demands for improvements in school houses, furniture, apparatus and such matters, these are more readily complied with, than they would be, if made by a man, whom school boards meet familiarly every day, and whom they may see removed at the end of the year.

The system has its faults. Dependence on political influences is one of them; another is the shortness of the term and the insufficient salary. These three causes combine to keep many competent men out of this office, and are the cause of the election of some that might be better employed somewhere else.

Yet I am not in favor of making the office dependent upon an appointment by higher authority. It is doubtful whether this really redeems it from political influences, while it cannot be disputed that the people would feel a latent aversion against a man, who might be a stranger to them, and whom not they themselves would have called to his position. The shortness of the term might be overcome by electing the superintendent for four years, as the county judge is now elected.

As for the salary, I think it should, extra expenses deducted, be at least as high as the salary of the best teacher in the county. I never could see why the legal superior of any public employee should receive poorer pay than his legal subordinate. Economy I admire, but parsimony in public affairs is, in my eyes, the most contemptible meanness. Offer good wages, demand adequate work, and employ men of whom such work can reasonably be expected.

The interest of the public schools is the paramount interest of every sensible citizen of this republic, and I hope sensible citizens will be in a *majority*, and creakers in a hopeless minority forever. We can expect this, however, only if we keep constantly and actively at work for the good of the schools. Competent supervision is as necessary as any other thing, and we cannot expect to have it, unless we are willing to compensate for the same.

My opinion in regard to school books you know quite well. I have made some efforts to induce directors to purchase from the publishers directly, but the idea needs yet time to penetrate the skull of the average district officer and that of the average voter.

These people seem to have gone to school when pleasure was found in variety, even if it were of text-books on the same subject in the same school.

They all would like the savings for themselves, but why their neighbors should profit by the same operations is not yet quite clear to them.

In conclusion, I may say, that, stepping out of the superintendent's office, (or even before that,) I have entered the ranks of active, and, as I intend, professional teachers, and am now teaching one of the departments of our public school.

CLARK COUNTY.

WM. T. HENDREN, SUPERINTENDENT.

Having forwarded to you my statistical report, I now hasten to add a few words by way of a special report.

I came into office Jan. 1st, 1877, to fill a vacancy, and shall retire at the end of this year, to give way, I hope, to a man of more experience.

I divided the county into six inspection districts. In two of the northern districts I changed the place of holding the examinations, so as to accommodate those this fall who were not accommodated last spring. Besides, I have held numerous examinations at other times, and at times I have found it necessary to travel twenty or thirty miles to examine a single teacher. Some, of course, have failed, while very many have received only limited certificates, with the warning to prepare for a harder examination in the future. At the last examination this fall, I succeeded in preparing questions which involved *principles*, rather than facts and puzzles, and I found that the more experienced teachers were delighted, while some of the untrained could hardly answer any of the questions. Still, we have an abundance of teachers, with offers of others from other counties. Some of those with limited certificates do well in the school room, and show themselves worthy of encouragement.

Several fine school houses have been erected this year. One or

two of them appear like neat country churches, with spire, and blinds, and bell and shade trees. Perhaps no other new county in the whole state can show such rapid advancement, and such good taste in regard to school houses.

In school visitations, I have been over the county the second time, almost; and in this I have done my most thorough and my best work. Both teachers and pupils have manifested a lively interest in the exercises that I have given them, and I believe that a new life has been given to the cause of education in this county.

Several of our best teachers have left us for the Normal Schools.

We need in this county a Normal Institute, to be held at least four weeks each year, and I think that the teachers feel the need of such training as they never did before.

The high schools of Neillsville, Humbird and Dorchester are worthy of special mention. Prof. R. H. Darling, of Humbird, has done a good work, and Prof. L. A. Doolittle, of Neillsville, proves himself to be a worthy successor of Prof. C. E. Miller.

COLUMBIA COUNTY.

KENNEDY SCOTT, SUPERINTENDENT.

I have the honor to transmit, in answer to your request, the following special report of the condition of our schools and the work of the past year. The schools of the county have kept pace with the progress of the times, and some improvements have been made whereby their efficiency has been increased, and better facilities offered for obtaining the rudiments of a common school education. One new district has been formed, and two other districts have been consolidated, making one good, strong district furnishing a sufficient number of scholars to guarantee a successful school, as far as numbers go to make that. Both these districts have built school houses that speak highly for the intelligence and public spirit of the residents. One log house has been replaced by a neat and comfortable frame building, making three new school houses built the past year.

SCHOLARS' ATTENDANCE.

The annual report to the state department shows that there are 9,004 children of school age in the county, exclusive of the cities of Portage and Columbus, which are not under the jurisdiction of the county superintendent, and that the number of days' attendance is 581,243, or an increase of nearly five per cent. over last year. There is still great need of farther improvement in this direction in view of the fact that 2,182 did not attend school any part of the year. This may be accounted for in part from the fact that in many sections school has been taught in Norwegian and German languages, and the enrollment is not reported in the public school reports. Statistics show that the highest per cent. of attendance is found in localities supporting the best schools, as the following report from two schools the past summer in this county will show. The teacher of the first was experienced and successful, the other had no experience; the former had enrolled 51; her per cent. of attendance was 88; and the latter had an enrollment of 40, with a per cent. of attendance of 40.

TEACHERS.

There are 165 teachers required to fill our schools; 550 applicants have been examined at 17 public examinations and 16 private ones. Certificates have been issued to 390; of this number, 171 were limited, or for six months only. There were 2 first grade, 19 second grade, and 369 third grade.

In conducting examinations, I have aimed to combine the oral with the written method, the object being to ascertain the amount of knowledge in the several branches possessed by the applicants for certificates, as also their ability to impart such knowledge to their scholars.

The teachers of this county, as a class, are earnest, ambitious and awake, and every effort made toward improvement has met with a hearty response from them. Each year about one-fifth of the teaching force are beginners, causing a vast amount of experimental and misdirected labor, acting as a serious clog to progress, as no sooner do they become proficient than they leave teaching.

INSTITUTE.

The institute held at Portage City last spring was the second

largest ever held in the state, there being 191 registered, with an average daily attendance of 160. This is a fair index of the interest manifested by our teachers in the matter of improvement. The institute was conducted principally by Prof. D. McGregor, of Platteville Normal School. His thorough scholarship, his practical knowledge of all that pertains to our public school system, and above all, his genial and gentlemanly bearing, won for him the entire confidence and esteem of all who attended.

Two lectures were delivered before the institute to large and appreciative audiences, one by Hon. E. Searing, and one by Prof. A. O. Wright, of Fox Lake Seminary.

This county has furnished twenty students to the State Normal Schools.

APPARATUS.

Although \$2,805 worth of apparatus is reported, many districts in the county cannot boast of a single map, globe, chart, numeral frame, nor more than two square yards of poor blackboard, and only about one-half have copies of Webster's dictionary of such date and condition as to aid the teachers or pupils. In my judgment it is necessary that each school should at least be provided with a map of the county and state, and I hope that district officers and patrons of schools will consider this subject favorably.

FREE HIGH SCHOOLS.

While under my jurisdiction there has been but one organized, and that is at Lodi. There are at least four of the graded schools in this county that are teaching everything required in the "Free High School Act," without deriving any of the benefit the state would confer, and are still paying their share of the tax in the support of said schools.

TEACHERS' ASSOCIATIONS.

These meetings have been held in different localities throughout the county with much benefit. General instruction, reports of the condition of schools, class recitations and discussions upon the common branches is the order of exercises at these gatherings. The meetings have made the teachers better acquainted, the interchange of ideas has created thought, and stimulated them to more energetic work.

SCHOOL VISITATIONS.

I attach more importance to this duty than many are inclined to. During the year I have twice visited all the schools in the county that have held two terms, except eight; and in these visits I have given particular attention to orthoepy, orthography, reading and writing, as I have found that these studies were most neglected, and have been well pleased with the result, especially at the improvement in writing.

In conclusion, I would again urge the necessity of having the summer schools commence as early as the middle of April, instead of the first Monday in May, as the attendance after the first of July will not, on an average, be over fifty per cent. of that of the first month of school.

 GREEN COUNTY.

T. C. RICHMOND, SUPERINTENDENT.

I stated in my last special report that we were making efforts to secure competent teachers. For this purpose we have continued, and still intend to continue, our institute work. We have institutes in this county just one-third of the time, and I am glad to be able to report that as the results of this work we have, (1) An able set of teachers. (2) A better and more uniform system of teaching. (3) A much livelier interest in school work on the part of the patrons.

TEACHERS' SOCIETIES.

We have our county divided, we might say, into four circuits, and each circuit into three districts, for the purpose of teachers' meetings. To each circuit we give a certain Saturday in each month; as for instance, to the north circuit the first Saturday, to the west circuit the second Saturday, and in this way we have a meeting in some district every Saturday.

TEXT-BOOKS.

A large number of districts have formally adopted a series of

text-books. Some under section 53, chapter 155, of the school code, but a large number under chapter 315, laws of 1875. In most cases the boards purchase the books from the publishers and furnish them to the pupils at cost. The people, so far as we know, are well satisfied with what is being accomplished under the latter law. But under the best law that could be enacted, with our present system of having district boards attend to this matter, we will have more or less inconvenience. A good superintendent can do a good deal in helping in the selection and adoption of text-books, but he cannot do all ; and I am well satisfied that we ought to have a town board of education to attend to this and some other matters, and have at least a town uniformity in text-books.

FREE HIGH SCHOOLS.

So much of our time for the past two years has been given to institute work that we have not been able to do much towards establishing free high schools, although we need them very much and ought to have them. Could we have a free high school in every township we would then have practically established the town system, and that, too, on a high plane.

SCHOOL HOUSES, ETC.

We are glad to be able to report that our old school buildings are fast being replaced by new and commodious houses. There are still a very few school houses in this county that are a disgrace to us ; but we will soon be rid of these, if in no other way, by condemning them.

Taking this county as a whole we are but poorly supplied with school apparatus ; we need to invest largely in maps, globes, charts, etc. However, we are hopeful that with our present corps of teachers, who appreciate these things and who can use them to advantage in school, this deficiency will soon be supplied. As a general thing our people are willing to supply these things to conscientious and enthusiastic teachers who can and will use them.

GRADED SCHOOLS.

The Monroe school, under the supervision of Prof. Twining, is doing excellent work. A goodly number of practical teachers are sent out from this school to work in the common schools of the

county, and some are prepared for admission to the State University. I can but speak in the highest terms of the successful efforts that have been made in this school to establish a library. The Brodhead school has taken a new start, and being thoroughly re-organized, bids fair to rank well among our high schools. The Albany school, under ex-superintendent Morgan, and the schools in Juda, Monticello and New Glarus, are improving. In each of these places we ought to have a free high school.

NORMAL SCHOOLS.

Green county may be counted as a friend to the normal schools. We are now sending a goodly number of teachers to those schools, and we can strongly commend their work.

CONCLUSION.

Looking over the past two years' work, we feel very much encouraged. We know our teachers are better prepared for their work, our system is more thorough, and our future work more inviting. In securing these results, I would here most gratefully acknowledge the advice, aid and encouragement received from Prof. Twining and ex-Supt. Morgan, who have been true workers with us, and on whom we have always been able to count.

JEFFERSON COUNTY.

C. J. COLLIER, SUPERINTENDENT.

I forward herewith something purporting to be an annual report. I have endeavored to do the best that I could, and yet it is full of imperfections.

I have found it much more difficult than usual to obtain reports from town clerks. This I attribute somewhat to the fact that the district clerks have been elected this year, and many of them just in time to make the annual report, and when we consider the fact that in many districts the clerk is unable to read or write in the English language, and that many districts keep no regular record

of their proceedings, merely memorandums taken upon slips of paper and that, too often, these are not to be found, my only wonder is, that they approximate so nearly to the truth.

I have taken the pains, in several instances, to go back to town clerks with their reports and, with them, to the district clerks, and failed to find any record sufficient to correct either financial statements or special statistics, and have been fairly compelled either to send them as I received them, full of errors, or to "doctor" them so as to make them balance, and as the benefit to be derived from the report would be about the same in either case, I have copied and forwarded.

I think that unless some penalty be attached to the law requiring reports upon all subjects required, as well as to the report of the number of children and the length of the school, the reports as a whole will be very unreliable.

It is true, some district clerks make very full reports, and this is true in every town in the county, but others will leave out some part, and when these partial reports are consolidated the totals and averages are somewhat deficient.

It gives me pleasure to be able to report a very perceptible progress in the condition of schools and in the qualifications of the teachers. In many districts the work is not such as ought to be demanded, yet I can see some improvement, and the demand for better teachers is increasing.

I have held fifteen public examinations during the year, and using forty-six days for the work, it has been my endeavor to make these examinations as thorough and as practical as possible, combining oral and written work and class drill, and spending a portion of each day discussing various subjects connected with "Theory and Practice." At these various examinations I have had 637 applicants, and have granted 275 certificates; 7 of the first grade, 22 of the second, and 246 of the third.

I would say, in explanation of the large number of failures, that quite a large number of the applicants were students of the graded and high schools, and were only writing for a standing, not intending to teach at present.

Our institute, in the spring, was attended by one hundred teachers, and as to the work, I need only say that it was under the charge of Prof. Salisbury, to make it appear that it was both inter-

esting and profitable, and the effects of it have been felt in the schools throughout the county.

I have made 232 school visits, using a day for two visits, making a written report, in all cases where I was unable to meet with any member of the school board, of the condition of the house, its apparatus and surroundings, as well as the condition and prospects of the school, and making such recommendations and suggestions as I thought beneficial.

I would respectfully suggest the necessity of a law regulating the age of applicants. I find it a very difficult matter to say to a teacher, friends, and even school boards, my only objection is age, many districts being anxious to employ such teachers on account of the wages. It is true some have performed a good work, and yet others of equal ability fail for various reasons, the principal of which are: first—a lack of judgment to meet emergencies that are so liable to arise in the school room; second—a lack of self reliance; and last, but not least, the school boards and patrons that have urged the school upon them, have no confidence in their judgment and ability to control unmanageable pupils, and as often condemn the action of the teacher, as that of the offender.

I have been compelled to refuse certificates to four girls only fifteen years of age, that had schools promised them, and that had recommendations from teachers and others as to their capabilities, and in their examination made a standing better than the average third grade teacher.

I have been thus explicit in making this statement, that some method may be taken to relieve superintendents from being required to refuse a certificate upon their own judgment when, as will often be the case in this matter, this judgment will be in direct opposition to that of many others.

I would also suggest a change in the law as to the register required to be kept by the teacher. At present the only information it can possibly impart to the new teacher is the names of the pupils and the amount of their attendance, tardiness, etc. I should like to see a law passed requiring a register of class work, and files of written examination work, and a general report of the condition of the school to be made by the teacher and left where it could be seen and examined by his successor.

I cannot close this report without again urging the necessity of

the personal supervision of the work in the school room by patrons and school boards. Without this, the limited amount of time spent in each school by the superintendent is in many instances lost, as many teachers that promise reform, only do so, with the mental resolve to put it off as long as possible. Hence I say, if you would have your work well done, give it your personal supervision.

LA CROSSE COUNTY.

S. M. LEETE, SUPERINTENDENT.

I am able to report marked improvement in the schools of this county during the past year. This improvement is attributable chiefly to three things: First, the large majority of our teachers have for each year of the last two years been in attendance at our yearly institute; second, the examinations have been more rigid and those licensed have consequently been better prepared for their work; third, many school boards have made it a point to consult the superintendent before hiring their teachers.

This is as it should be. School boards can necessarily have but little knowledge of the culture and teaching qualifications of applicants for their schools; and by their consulting the superintendent he is able to utilize his knowledge of the teachers under his supervision. I think the interest of our schools would be advanced had we a law requiring consultations between boards and superintendent, relative to the employment of teachers. A day might be given each spring and fall, in every inspection district, for this purpose. I think some such plan would bring about unity of effort between school officers and county superintendents that would be beneficial.

Improvement has also been made in school buildings, during the year. A new house has been erected in the town of Farmington, another in the town of Holland. The district comprising the village of Onalaska has enlarged its house which is now the largest in the county. Several other districts have enlarged and improved their buildings.

I have granted during the year one hundred and eleven certificates. Fifty-six were granted to males and fifty-five to females. Three of these certificates were of the first grade, seven of the second, and the remainder of the third grade. There are sixty-six school houses in the county. Seventy-five teachers are required to teach the schools.

The institute held in October was well attended and very marked interest was manifested throughout all the sessions. The visit and lecture of the Supt. of Public Instruction added very much to the interest of the institute. Hon. W. H. Chandler was also present during two days and aided us by conducting several exercises. His lecture was well received.

Summing up the items mentioned, we have better teachers than ever before, school boards are more careful in selecting teachers, and new houses have been built, others repaired and improved, so that on the whole the outlook is promising.

MANITOWOC COUNTY.

W. A. WALKER, SUPERINTENDENT.

I have the honor to transmit to you the following special report:

The reports of the town clerks have, as a rule, been more correct the past fall than heretofore, during the time that I have exercised the duties of superintendent. How much is due, in this direction, to the calling of the attention of school clerks to the matter of their reports in a circular sent out during the summer, I am unable to say. Were the reports simplified, by leaving out many of the particulars at present required, there is little doubt but that we should in the course of time approach correctness. It is burdensome for a man to perform that which he believes useless; and impossible for him to do well that which he but faintly comprehends.

The schools of the county are in a fairly progressive state. As the people accumulate property, better school houses are erected, and more taste in surroundings and greater liberality in furnishing are shown. The labor of children is not needed in the woods and

fields to provide sustenance for the family, and they are allowed to spend the time in attendance at school. I believe that many of the questions that at present agitate school-men will be solved at no distant day through the means of accumulation of property. Men cannot be liberal in the voting of taxes, when their payment takes from them the enjoyments of life.

The Institute during August last, under the charge of Mr. Graham, was a very successful one, viewed in every light. To appreciate the power that experience gives, it is but necessary to be with Mr. Graham during a session of an Institute. Teachers' meetings are to be organized in at least three portions of the county for winter's work. They are to be in a measure auxiliaries to the county association.

The greater portion of the districts of the county, stimulated by the circular sent out from the office of the state superintendent, supplemented by one from this office, have adopted a series of text-books. The books adopted have not always been worthy, the occasion having been taken by agents to successfully canvass a few country districts and put in poor books. Had the state superintendent recommended books to be selected from, this would not have occurred. If occasion again requires a circular of like character from my office, guided by experience, I will follow such a course. The official adoption of text-books by districts has worked favorably, and to the advancement of school interests.

But few districts have tried the purchase plan further than to purchase for first introduction. Some of these districts are contemplating the purchase of books in quantity for continued use in the schools. In the main, satisfactory results are reported. I know of no district in which the free text-book plan has been tried. If at all practical with us, it is of the future.

There is a general demand for *cheaper* text-books, and, I believe, the people generally are favorable to any policy or legislation contributing to that result, not absolutely hurtful in tendency. A latent desire exists for state uniformity, but not of a character to accomplish anything of importance.

If the power were given to district boards to control the matter of district purchase, rather than to the school district, a large number of districts would adopt the plan. The power to purchase and sell might be given to boards at their option, and the more exten-

sive power of purchasing and renting or loaning withheld. Many boards would assume the risk, personally, were they legally authorized to do so.

A course of study, sanctioned and issued by the state superintendent, would work valuable results in the state. Such a course could be made of a form pliable enough to fit the circumstances of nearly every country school, and should comprise general directions as to the method of instruction to be pursued. System and plan are the needs of the country schools. A definite work to do with a definite object to be reached, would enable teachers to do work with greater thoroughness, and accomplish much more. I believe such a course of study feasible, and the time ripe for its institution.

If each superintendent were directed to call to his assistance two persons, properly qualified, forming a board of examination, to aid in examinations and the granting of certificates, I believe general good would result. Favoritism and dishonesty would, in a measure, be done away with, and teachers would depend more upon scholarship than upon the personal friendship of the superintendent, or the political influence of their friends. Such a system would distribute responsibility, and do away with the persistent and annoying solicitations for licenses by those who fail, that every superintendent undergoes. The superintendent in the honest discharge of his duties, would not be compelled to create such a number of implacable enemies. The additional expense would be only nominal.

MARATHON COUNTY.

THOMAS GREENE, SUPERINTENDENT.

During the past school year, a very decided improvement has been made in all the schools of this county, an improvement which is due to the interest which has been aroused in parents, school officers, teachers and patrons.

The standard for certificates has been raised, and an advance in the qualifications of teachers required with success. The scholarship of teachers has greatly improved. They have in general be-

come earnest and active in their efforts to render themselves worthy of the trust committed to their charge.

The number of teachers that attended the institute this fall has been much larger than that of last year. It was conducted under the skilful management of Prof. Graham, whose valuable services will long be remembered with pleasure by those who were in attendance.

The school houses in general are in good condition. In districts where the people cannot afford to build new houses, the old ones have been repaired and made neat and comfortable. In many of the school houses the clumsy old seats and desks have disappeared, and patent furniture has taken possession. There is but one mean school house in the county and that will soon disappear.

MARQUETTE COUNTY.

H. M. OLDER, SUPERINTENDENT.

In submitting my annual report, I wish to give a slight resume of school work for the past four years in Marquette county, that you may be able to judge of the progress, or non-progress, better than you can from the statistical report.

On taking charge of the schools as superintendent, I found many faults which needed correction, and my sense of duty led me to seek for the causes and try to remove them. Among these faults were: first, a general apathy on the part of the patrons of the schools, they thinking their whole duty was done when they voted a tax and hired a teacher, in many cases not providing a decent room, out-buildings, play ground, text-books, or *ever* visiting the schools; second, as much of an apathy on the part of the teachers, they considering their duty done when they asked the pupils the question in the lessons assigned, exercised a partial control over them during six hours of the day, and drew their money at the end of the term, and repeating this farce on teaching in some other district during the next term. I do not mean to say this was universal, but there was this disposition in many districts in the county, and the result was, of course, a distaste for school, which led to

irregular attendance, tardiness, lack of interest in school work, and hence no good was derived.

To remedy these evils I worked for the following results, and by the means mentioned below: First, to get good rooms and surroundings, by showing to the people the benefits to be derived, by pointing out the danger to health and morals, and the result has been ten entirely new school rooms, and many more reseated and made habitable, good out buildings to nearly every school house, nice play grounds, apparatus, and a good deal of improvement in textbooks. Second, a better grade of teachers. This was accomplished by personal advice to teachers, in pointing out their duties, convincing them they were legally and morally bound to instruct intellectually, morally and physically; that they were obligated to perform — by delegation — every duty a parent was naturally to perform. Also by raising the standard of teachers so that "only the fittest should survive," thereby giving to the schools the best material we had. Of course this necessitated some means of improvement for teachers, and being remote from normal schools, and having no high schools in the county, application was freely made for institutes, and I am free to say that to these we are indebted more than to any other means, for any advancement that has been made.

Institutes have been a means of instruction to the teachers, have shown them better ways of teaching, have awakened a love of knowledge in teachers which has resulted in private study, more extended reading, attendance at normal and high schools, induced them to practice in their work what they have learned by their attendance at these institutes, and unless we acknowledge that the instruction given is worthless, then we must acknowledge that they have been of great practical benefit. Nor does the good stop here, they are strong aids to the normal schools, for once beget a love of knowledge and it is sure to seek a channel of improvement; and applications for admission to the normal schools have never been so frequent as since the institute work has been in vogue in this county; and no spring or fall passes now but a number of teachers are in attendance on the high schools at Portage and other places. All these combined have formed a far more healthy opinion and the results are, a large increase of attendance, a greater interest among patrons, a better class of teachers, and far better

instruction — results which are well worth striving for and working to not only retain but advance.

I cannot close my report without making some suggestions which, if carried out, would, in my opinion, bring desirable results:

1. Every institute should be held at least two weeks.
2. The free text-book law and town system should be obligatory instead of optional.
3. One free high school at least should be organized in each town.
4. The superintendent should be elected for not less than three years, and by the town school boards, and should be paid by the state.
5. Each town should have a uniformity of text-books.

These are opinions I have been led to adopt, after carefully considering the subjects, and think the reasons are patent to everyone.

While realizing that much remains to be done, and that all has not been accomplished that might have been, yet I hope that the results of the work are such as will commend themselves to you, and receive your approval.

MONROE COUNTY.

N. H. HOLDEN, SUPERINTENDENT.

The number of teachers required to teach the schools in this county is 145, an increase of three from last year. One district has been discontinued, and four new districts formed. Three new frame school-houses have taken the places of inferior ones, and several districts have raised money for the purpose of building new houses next year.

There are many school-houses in the county entirely unsuitable for school purposes. In some of these cases the districts contain but few families, or have so little property that the expense of a school is very burdensome, even with the smallest possible outlay in a school-house. In other districts there is no excuse but penuriousness, or erroneous views of school economy. Ten of the twelve new school-houses built within the past two years are frame buildings, well constructed, and six of them furnished with patent seats and desks.

The financial statement shows a larger amount expended for school buildings and a less amount for teacher's wages than during the year previous; the average wages of teachers being about one dollar per month less.

The total number of persons of school age in the county is 8,289, being 287 more than last year. Of this number, over two-thirds have attended school within the year. Every district has maintained, at least, five months of school, with the exception of a new district in Byron, not formed in time, and a district in Wilton in which the school house was burned last winter.

During the year, I have visited schools in one hundred and two districts, making to them one hundred and fifty-six visits. While this work requires a large amount of travel and no inconsiderable expense, a full knowledge of the teacher's power and value in school work can be ascertained only by personal inspection of the work.

Last winter nearly all of our schools were doing good effective work. The summer schools are of shorter terms and not as well attended. Many of them are taught by younger and less experienced teachers; and while they cost less than the winter school the average work is inferior, and their value much less.

Many districts have wisely arranged their school terms, so there is no school in July or August; having fall, winter, and spring terms, or a long winter and a short summer term. This will increase the average attendance and give a better average grade of work.

A series of teachers' meetings was held last winter at Sparta, Tomah, and Wilton. The attendance was reasonably large, and the teachers present showed an earnest enthusiasm in efforts for improvement. The work of these meetings was given almost exclusively to questions of how to teach the various branches more successfully. The teachers who attended were materially benefited.

A teachers' institute was held at Sparta in April, conducted by Prof. Robert Graham assisted by the late Prof. O. R. Smith. There were 134 teachers in attendance—nearly all of them, the entire week. The State Superintendent of Public Instruction, Hon. E. Searing, and Pres. Parker, of the River Falls Normal School, were present, and lectured to the institute. A large proportion of all the teachers in the county were present, and the institute was in every sense a decided success.

Material advancement in our schools may be secured by supplying them with teachers of more thorough scholarship; with teachers having more knowledge of methods or how to impart instruction; and by providing school houses properly seated, with sufficient blackboards, crayons, maps, and other needed apparatus.

To secure better scholarship, I have raised the standard required at examinations as high as seemed reasonable with the supply of teachers in the county, and their opportunities for improvement. Improvement in knowledge of "how to teach" must be made through attendance at normal schools and teachers' institutes, or by careful study of works on theory and practice of teaching.

Although the normal schools are remote, a limited number of teachers attend some of them each year; and, as the report shows, a large number attend the institute and teachers' meetings.

From the large number of teachers required, the smallness and poverty of some districts, and remoteness of normal or training schools, it is impossible for all district schools to be taught by well trained teachers.

Nearly all of the teachers in this county, who have normal school training, obtain situations in graded schools, or at prices that only few districts are able to pay; and the less able districts must take such ability as Monroe county schools and teachers' institutes furnish them.

There has been improvement each year in the high schools of Sparta and Tomah. These, with the advantages now offered by the graded schools at Norwalk, Wilton, Kendalls, and Glendale, give better opportunities for instruction in our own county than formerly. These schools exert a material influence upon the character of the schools in a circuit around them, as nearly all of the adjacent schools are taught a portion of the year by teachers that have only such scholarship and training as they have been able to obtain at some one of these graded schools; and I am glad to be able to report that each of these schools is in charge of a thorough, earnest, and competent teacher.

Within the year, I have held thirteen public examinations. Whole number of applicants examined, 384; certificates granted, 230. Some of these were for six months only, year certificates being granted only to those who obtained a high average standing. Thirty-four teachers attended the spring and fall examinations and

received two certificates each. I have intended to license a sufficient number of the better applicants to teach all the schools, and a small surplus. To license more than this, will fill the schools with the cheaper and less competent teachers, leaving the experienced whose services are more valuable, to find other business and thus discourage the really meritorious and lower the grade of work.

The county superintendent of schools is beset at every examination by applicants for certificates and schools, who are but 15, 16, or 17 years of age. Their scholarship may answer the requirement but, with few exceptions, they lack the mature judgment and understanding of the work necessary to success, and make partial or total failures. It requires a little nerve and decision to hazard popularity, and brave the partial parents' wrath by refusing to grant certificates to babies.

The public sentiment in this county in educational matters compares favorably with the better counties in the state of which I have any knowledge. We have a good number of well experienced teachers, and while our schools have not reached the highest excellence, I consider they are doing fairly good work.

PEPIN COUNTY.

J. H. ROUNDS, SUPERINTENDENT.

I am a little behind time with my annual report, caused by some of the town clerks being late with theirs. Some of their reports I had to return for correction, and to be completed. In the financial statistics, I see one town reports nothing received "from taxes levied by county supervisors." If they have drawn it from the town treasurer, or from the county treasurer, it is probably placed in the column headed "from all other sources."

Every school district in the county has maintained a school five or more months during the past year; and all are entitled to share in the state school fund.

I manage to visit each school in the county once or more in each

term, and usually spend the entire day in the school, and occupy part of the time in oral reviews of their studies. Generally, the pupils manifest a commendable degree of interest in these exercises.

The free high school in Durand is conducted by C. D. Bon, and the one at Pepin by E. T. Fitch. Both men are first class educators, and the fruits of their labors are already apparent in the preparation that some of the young men and women of our county have made for the teacher's work. We number some of them among our best teachers.

Last winter we organized and held teachers' meetings in Durand and Pepin. They were spent in drill exercises, calculated to prepare the teachers for better work in the school-room. Our teachers' institutes have been well attended and they have been very profitable, by showing teachers the standing to which they should aspire, if they would rank honorably in the profession.

In looking over the field of my labors for the past two years, I conclude we are getting better teachers and better schools in Pepin county, and that we are making progress in the good work; and in this educational work we recognize the valuable aid rendered by our Hon. Supt. of Public Instruction, by his constant and untiring labors in this direction, for which we tender our thanks and gratitude.

PIERCE COUNTY.

H. S. BAKER, SUPERINTENDENT.

While the aim in the visitation, in the past, has been, during the different seasons, to work up a good degree of discipline, a proper programme of recitations and study, systematic school and class movements, in general work, in the future I shall give particular attention to the best methods of presenting particular topics, usually called difficult. In regard to branches in which I have labored to secure a good method, primary reading, primary geography, spelling and language have received attention. Next winter's work will relate to branches and topics naturally following the above, and especially to drawing, physiology and advanced

reading. The association work, which has been mainly upon primary methods and general school management, will now touch the second and first grade branches. The former are fairly understood. Especial attention will be given to creating an interest among parents. The teachers have, in some cases, been hindered in their work by apathy and unthinking opposition to new methods and a desire of some to limit the school-room work to the three R's. Even grammar has been denounced as injurious.

LEGISLATION NEEDED.

I give points not noticed last year.

1. Drawing and botany deserve a place among the requirements, in some grade. Physiology should be placed among the third grade branches. Personally, I believe that all three belong there, even if they should crowd constitutions, history and orthoepy into the second grade. The reasons are many and obvious.

2. A law compelling each district to purchase a small number of books to form the basis of a library, the amount to vary with the valuation of the district.

3. The Journal of Education, by legislative appropriation, or otherwise, should be placed in the hands of every school board.

4. A law absolutely forbidding private examinations of teachers, but allowing, as now, supplementary public examinations.

5. I believe that a wise, well digested law, compelling attendance at school a portion of the year, at least of children from 7 to 15 years of age, would be a blessing to this county. If it proved a failure, it would do good by calling attention to the matter. I am aware that this view is not popular, but I speak advisedly of Pierce county.

6. There should be an increase of the fund devoted to Institute work, sufficient to provide at least one good lecture at each, or during each Institute, with a view to awakening an interest in the parents, and inspiring them to have good schools.

7. There should be some penalty or reward attached to the proper performance of the duties of the district board, in relation to making the annual report. The county superintendents cannot always do their duty. When a district treasurer can omit a financial statement for three years, with impunity, there is a defect in the law.

8. There should be more definite laws in regard to the conduct of a trial of a teacher before the county superintendent, upon charges affecting moral character, with a view to having the certificate annulled. A case of that kind developed the fact that the bar could find little in the statute or reports to guide them. The judicial power of the superintendent seems to be undefined. His power in regard to compelling the attendance of witnesses, and in similar cases, is given differently by different legal advisers.

9. There should be a larger appropriation for the annual reports of the state superintendent, in order to have some copies for distribution among the higher grade of teachers, through the county superintendent or otherwise. There have been many calls for them within the last year.

TEXT-BOOKS.

By the liberal use of circulars, both of my own and of the state superintendent, a large number of districts have purchased books and made them free, or sold at cost to pupils, and the work still goes on. The results are, in all cases, satisfactory. In another year, I believe that no politician can show any advantage that would accrue to Pierce county, by a bill's being passed like the one before the legislature last winter, even if it should embody the united wisdom of the state, in regard to uniform text-books.

HIGH SCHOOLS.

The city of Prescott has recently organized under the law of 1875. Other places have discussed the subject, and may act next year. The school at Prescott, a private academy at River Falls, and the Normal, give teachers an opportunity to acquire good preparation, and will warrant a rapid advance in the requirements for a certificate.

DRAWING.

During the last year, a large number of teachers have introduced this branch, and it has given a new stimulus to primary work. A large number of teachers, probably one-half, reported that they taught it last summer. The systems of Walter Smith and Krusi are chiefly followed. A large number have purchased manuals for use in the winter schools, and a good work is promised. I am urging the importance of teaching this branch to all grades of pupils, and especially to the primary.

TEACHERS' ASSOCIATIONS.

The Pierce County Teachers' Association has had very frequent meetings during the past year, and the good accomplished has been very great. New methods, valuable information, and a professional spirit, are the results. The teaching of history, primary reading, geography and spelling, has been, by these meetings, rendered very effective. A few town associations of live teachers had very profitable meetings last winter.

GENERAL PROGRESS.

1. Educational papers are now very generally read. About 150 of various kinds are now taken in the county. I now mark upon every teacher's certificate the number of such papers taken, and the kind, whether weekly or monthly.

2. There is a great deal of attention paid to the movements of classes and the school as a whole. System is taking the place of confusion. It is, in some schools, almost military in its precision.

3. Penmanship and map drawing are receiving proper attention, and oral spelling has become a thing of the past, in most schools.

4. Ventilation is better than formerly, and the hygiene of the school room is studied, and heeded.

5. A very large number, by close application, and private study, obtained first and second grade certificates. District boards are asking for something better than a third grade teacher, where the school is large.

6. Constant inquiries in regard to maps, globes and other apparatus, show a rising interest in better educational facilities.

7. Lyceums, lectures paid for by them, and the attendance of district officers upon associations, attest the same.

8. A large number of new school houses have been built during the year, and they have been well furnished, and are a credit to the districts.

9. The meetings of the Pierce County Teachers' Association have been well attended and productive of much benefit, as my visitation shows.

10. The teachers holding first and second grade certificates, especially males, are, I believe, without exception, engaged for the winter, and this shows that a better class of teachers is demanded.

11. Many competent female teachers have found employment in other counties, while few have come from other counties into Pierce. This may, however, be differently interpreted by some.

12. In visiting the different schools, I have been pleased at the readiness with which my suggestions were received and acted upon by teachers. Others have importuned me for advice, and plied me with questions regarding the methods they used, and possible improvements, until I have felt the need of a more thorough knowledge of methods. My having stood in the relation of teacher to about one-third of the teachers, renders them more free to speak without embarrassment.

POLK COUNTY.

J. W. DEAN, SUPERINTENDENT.

In transmitting this, my last annual report, it may not be amiss to say something of the objects I have sought to accomplish, and to enumerate some of the obstacles in the way of carrying out my plans.

During my first visit to the schools, I was struck with the idea that many of the teachers were complete slaves to the text-books; that if the pupil recited so many lines from the book, although it was evident he did not comprehend the meaning of what he repeated, he was credited with a perfect lesson. I also noticed that many of the pupils did no studying, or if they studied, it was the book and not the subject. And often when time for recitation came, the *teacher* instead of the *pupil* did the reciting. Many of the teachers were young, and having been thus taught, knew no other way. Whenever I have had opportunity, in my visits to the schools and in the teachers' meetings, I have condemned this method of teaching, or want of teaching; and, while it would savor of egotism to claim that much has been done in this direction, I believe that more teachers now, than formerly, are earnestly laboring to awaken thought on the part of the pupils.

In speaking as I do of the mismanagement of the schools, I would

not be understood as agreeing with the few who claim that they are little if any better than no schools, for I am aware that there are many who have pursued an honorable and successful career, who received their inspiration, as well as the rudiments of their education, in the common schools, and there are thousands more, in the humbler walks of life, who have been made better and consequently happier through the same agency. But I would be understood as claiming that we may and ought to receive greater returns for the amount expended for the support of schools in our state, and further, that we can never receive adequate returns until we place a better class of teachers in the schools than we now have, and that it is worse than folly to expect such teachers, unless we require *special* preparation on their part. We might as well expect one to make a proficient bookkeeper at once, who knows nothing of the science of accounts.

After the first examination I found that we had more teachers than we had schools, and resolved to select the teachers from those that evinced the most thorough preparation at the examinations, and the greatest aptitude to teach in the school-room. I have kept this object constantly in view, and have reason to believe that it is beginning to produce good results, by stimulating teachers to make extra effort to fit themselves for their work, by compelling some of the unfaithful ones to abandon teaching, and by giving some assurance to the best of our teachers of the permanency of their employment. While I have not been exempt from the charge of favoritism, so generally brought against superintendents, wherever this course of action has been brought to the notice of the people it has generally met with their approbation.

The greatest obstacle to carrying it out seems to be the meager wages paid to teachers in some of the districts. People seem to forget that a person who has spent both time and money fitting himself; nay, who is constantly spending time and money that he may have something new to offer his pupils, can not afford to work for the same wages as the person who has received no training outside the common schools, and now makes no effort for improvement.

I have in mind one who has had many advantages of training, is acknowledged by all to be a person of superior mind and a good teacher, has attended every teachers' meeting held in the county the past two years; and, on the other hand, another who has had

none of these advantages, and who has manifested little interest in education generally, and yet, because the latter holds a certificate he is as likely to find employment as the former, and sometimes seems to have the preference.

The two teachers' meetings held the past year — the meeting of Polk County Teachers' Association, held at Farmington Center, and the institute, held at St. Croix Falls — were largely attended, and an unusual degree of interest was manifested by teachers and visitors.

ROCK COUNTY—FIRST DISTRICT.

J. W. WEST, SUPERINTENDENT.

In comparing the schools and educational interests of this superintendent district now, with the same of one year ago, I am glad to be able to report a marked improvement in many respects. The standard of qualification of teachers has been raised; school officers are more careful and guarded as to the character and ability of teachers they employ, giving preference to those who hold good certificates and manifest a lively interest in their profession, by attending institutes, reading educational works, etc., believing after all, that the cheap teachers are the dearest in the end. As a result, the teachers of the past year have manifested a greater devotion to their work; patrons and school officers have made more frequent visits, and the attendance of pupils has been more regular than during the year previous.

I cannot, however, make so favorable a showing as to the permanency of teachers, as some of my brother superintendents; rotation is too much practiced. Eighty-nine teachers are required to teach the schools and departments of this district, and 164 persons were employed the past year. The schools of the past summer, with the exception of four, were taught by female teachers, while more than half the teachers employed for the winter term were males, yet it is frequently the case that the same teacher is employed alternately for summer and winter. The average wages of male teachers have been reduced a little, while those of females have been increased.

Two hundred and nine third grade, twenty-seven second grade, and six first grade certificates have been granted, and the holders of there are but little more than half the number of applicants. If there is a scarcity of teachers in other parts of the state, we can furnish a supply without impoverishing our own schools.

Many of the school-houses are in better condition than they were one year ago, needed repairs and improvements having been made. School-rooms are better provided with outline maps, charts, etc. In a few instances shade trees beautify and decorate the school-grounds.

One new school district has been formed and three new school-houses erected; two are wooden buildings, the other is veneered with brick. Two others are in contemplation and will be built the coming year, and still there remain a few miserable shells not worthy the name of school-house, which I hope will soon be replaced by new ones.

Much credit is due the town clerks for the accuracy and completeness of their annual school reports, and for their promptness in making returns. The result is, with the aid of teachers' monthly reports, I think I have presented to you a passably correct report.

The text-book question has been pretty thoroughly agitated and discussed, especially since issuing a circular to district boards bearing upon this question. The plan of districts' purchasing direct from publishers is generally approved, but there is a variety of opinions as to the best mode of furnishing the books. My annual report shows that four of the eighty-three districts under my supervision, purchase direct from the publishers; two loan free to the children, and two sell at a nominal advance, to cover cost of handling and caring for the books. Since the annual school-meetings, many districts have examined the plan more carefully and have called special meetings for the express purpose of adopting the same. By the close of another year, I am of the opinion that our patrons and school officers generally will become thoroughly convinced of the utility of, and the benefits derived from our wholesome laws relating to text-books, and will act in accordance with the same.

The teachers' institute held at Evansville last August was a success, as regards the amount and quality of the work accomplished.

The pleasant and agreeable manner of the conductor, Prof. D. McGregor, won the good will and hearty approbation of the teachers present. The attendance was not large, but on the whole, it paid, *doubly paid*, for the time and labor expended in arranging and organizing. I am assured that our teachers feel the need of institute drill, and would feel under obligations to be present and take part in, at least, one institute each year, in order to keep pace with the improvements of the day.

Monthly teachers' meetings have been held the past year in different parts of the district, at places convenient of access, with much profit and interest to those in attendance. These meetings will be continued.

The graded school at Evansville is now organized and established as a high school. Prof. A. R. Sprague, the principal, has done much toward raising the standard of the school to its present position. In a recent announcement, in circular form, to the public, he presented a course of study, and clearly stated the design and purpose of the school, and its relation to the district schools. A set of questions, indicating the scholarship required for admission to the high school, will be prepared and submitted to the more advanced pupils of each of the schools of this superintendent district, after which the comparative standing will be published. It is hoped that this plan will have the effect to grade the district schools, and at the same time encourage the patronage of the high school. There will be no graduating class this year, but the class now pursuing the regular course will graduate next year. The number registered in the high school department the past year was forty-eight.

ROCK COUNTY—SECOND DISTRICT.

J. B. TRACY, SUPERINTENDENT.

I am happy to report that the condition of the public schools in this superintendent district, as a whole, is prosperous. While there is a manifest lack of proper interest on the part of many, and even of some school officers, still there is shown an increasing desire to

improve the condition of our schools. This is manifested in seeking the services of teachers of better scholarship and greater experience; also in making more liberal provision for school supplies. Several districts have, during the past year, purchased outline maps, globes, charts, etc., for the use of their schools. It is a good investment, which will yield a profitable income. To put a teacher into the school without any apparatus with which to illustrate the several branches taught, is practicing about the same degree of economy as the farmer would if he should send his hired man into the field bare handed, without tools to work with.

Fifteen or more districts have, within the past year, formally adopted a series of text-books. By so doing, the scholars are better classified, and consequently more and better work is being done. Nearly, if not all of these districts, purchase their books directly from the publishers, and either loan them to the pupils or sell them at cost. In those districts where the plan of free text-books has been adopted, it is working well. For the interests of the schools, it is, in my opinion, far the best plan. It gives the teacher a much better opportunity to select the proper grade of books and studies, suited to the capacities of the several pupils; and also furnishes a full supply of books at the commencement of term, when the classes are being organized.

I cannot see why there is need of any further text-book legislation, unless it be to *compel* the district or town to adopt a series of text-books; and as far as I can ascertain, from those best posted in the matter, there is not a demand for any further legislation on the subject, either in the interests of the schools or of the people.

The number of applicants for certificates, during the year, has been quite large. This is easily accounted for, as we have a normal school, two colleges, and several high schools in our immediate vicinity, all sending out those desiring to teach. I have granted 188 certificates of all grades; 2 first grade, 20 second grade, and 166 third grade. Of those holding certificates, 132 have taught in this superintendent district during the year; 40 for the first time. Nearly one-third have had no previous experience in teaching. So long as we have so many inexperienced teachers, we cannot expect the best results. The most of them exhibited in their examinations very fair scholarship, but in the school-room, some show a want of tact in the general management, and others in the ability

to impart instruction, or conduct a class drill, such as will inspire, guide and control pupils in self-culture, and in the attainment of knowledge by their own earnest application.

It has been my purpose, in my examinations, to select such questions as would test the applicants' knowledge of *first principles*, and his ability to apply them in practice. It has seemed to me of more importance that the teacher should have the power to illustrate and apply principles than that he should possess the highest order of scholarship. A goodly number have shown themselves competent for this work, in many respects; others, not so well qualified, are making commendable efforts to improve. More than usual have asked nominations to the Normal school, and others have shown a deeper interest in institute work. Two institutes have been held during the year; one at Milton, in March, with an attendance of ninety-one; one at Clinton in August with sixty-two in attendance. Both were under the conductorship of Prof. Salisbury, who won the favor and respect of all by the thorough manner in which he did his work. Good results are already seen in the improved work in the schoolroom.

In entering upon another year's work, in connection with the schools, I trust it may be my earnest endeavor to labor for their success, for around them cluster our fondest hopes of future safety and prosperity.

SAUK COUNTY.

J. T. LUNN, SUPERINTENDENT.

No. of children of school age in county.....	10,528
Of which there attended school.....	7,264
Average days schooling per district.....	132
Average days schooling per pupil enrolled.....	78
Average tuition per year per pupil enrolled.....	\$5 52
No. situations for teachers in county.....	184
No. teachers <i>now</i> holding certificates.....	258
No. applicants at examinations...	435
No. applicants authorized to teach.....	303
No. days teachers' institute held.....	20
No. enrolled at teachers' institutes.....	197
Nominations to normal schools.....	5
Official visits by me to schools.....	241
Spent for all school purposes.....	\$52,933
Of which male teachers received.....	16,408
Female teachers received.....	23,483
Average wages paid male teachers in country schools per month....	\$34 80
Average paid female teachers.....	26 29

SCHOOL ATTENDANCE.

When the average attendance of pupils is considered, it really means that about one-third of them have attended about five months; another third have attended about three months; and the attendance of the remaining third is so small and scattering as to render it doubtful whether its benefits counterbalance its damages.

In the flush times preceding the panic of '73, there were in the county about one thousand *less* of school age than now, and the strange fact is, that there are now one hundred and fifty less enrolled than then. This poor showing is offset by the cheering fact that the less ratio of pupils of this year attended school 50,000 days more than did the greater ratio of that time. The increased steadiness of attendance which this indicates increases the efficiency of our schools for those who attend, but it also brings up for consideration the question, what shall be done for those who refuse to attend school? Whether this is more owing to hard times or to a change in nationality or character of our population, time alone can determine.

TOWN HIGH SCHOOLS.

Baraboo and Sauk City have organized under the provisions of the Free High School Law, which insures their securing aid from the state to assist in maintaining such schools; and two or three other villages are considering the matter and may adopt it. This aid to local advanced schools was originally intended for the benefit of rural townships, remote from villages with their better schools, where its advantages are most needed, on account of the poorness of the average country school; but such is the blindness or perversity of humanity that not one such intended locality in the state has adopted it. Such being the case, an amendment was made to the law allowing incorporated villages to secure its advantages, of which they have rapidly availed themselves, and with little, if any, outlay or disadvantage secured a handsome bonus from the state. Several townships in this county are well adapted to crowning their several schools with the advanced course which this law alone proffers; but the project wherever broached has been looked upon as a new scheme to bleed an already overburdened public.

TEACHERS.

Our 184 situations for teachers having been filled by 278 engage-

ments, means that nearly two-thirds of our schools changed teachers, entailing an average loss of at least two weeks each, at an average wage of \$7.50 per week, or a total of about \$1,800; and yet hoary-headed custom makes some people think that throwing away \$1,800 a year is just the thing to advocate and continue by changing teachers.

Another loss is occasioned by the little discrimination made in the wages of teachers, one-third of whom do not earn and *can not* earn what they ask and receive; another third earn just about what they receive; while the most worthy third, having to compete with nepotism and indifference, receive less than they earn.

In opposition to the practice in some counties, fancy standings have not been given to applicants at examinations unless merited by actual attainments, my opinion being that unearned high standings induce in their holders a feeling of self-sufficiency that checks study and effort. With this view the standard of scholarship has been kept high, but enough teachers have always been kept in the field to fill all the schools and leave a few for choice. Those who could not pass for certificates have been licensed, *provided* they signed an agreement to study from one to two hours per day on their lowest standing branches, until enough were obtained to meet all demands.

Teachers' associations and meetings, institutes and periodicals have been well patronized, and a general willingness to do the fair thing for progress has characterized the majority of our teachers.

TEXT-BOOKS.

The text-book bill of last winter, by producing a change in the basis of publishers' quotations, has induced many districts to attempt supplying their pupils with books through what is known as the district purchase system, by which the district purchases at wholesale rates, direct from publishers, and then sells, rents or loans the books to its own pupils. Seventeen districts are reported as purchasing by this plan, nine of which loan and eight of which sell books to pupils. Experience alone can determine the practical utility of this attempt to solve the text-book problem. With its cheapening of prices, disadvantages appear, chief among which is inability of some school officers to properly transact the business connected with ordering and keeping track of the books and ac-

counting for the book fund, and by ordering books in such small quantities that trouble and freight overbalance reduced prices.

BUILDING AND REPAIRS.

Fewer school-houses have been erected than for a few years back, but the aggregate spent for this item has been increased this year by the erection in Spring Green village of an imposing building, ample, and well adapted to its intended use. In cost it is the second school building in the county, but its rooms are second to none for capacity, finish and comfort. A number of districts have replaced their old, dilapidated seating by that of more modern style, and a few country school-rooms in this county have few superiors in any county of this state.

TREMPEALEAU COUNTY.

AMOS WHITING, SUPERINTENDENT.

In my report for 1876, the number of children of school age, in the county, was given at 6,142, and the number enrolled in the schools at 3,964. This year the whole number reported is 6,375, showing an increase of 233, and the number enrolled 3,881, which is 17 more than given in my recent report, showing a numerical increase of 187, and a small decrease in the percentage of attendance in the schools.

The number of teachers required in the schools is given at 92, and the number of different teachers employed 127. All but four of the schools have been visited by the superintendent, and the number of different visits made by him is reported at 124, which is somewhat less than the real number. These visits have generally occupied a half day each; in a few instances a whole day has been devoted to a single school. The number of different persons licensed as teachers, during the year, is 128, of which number 6 are of the second grade, and 122 of the third. Since September 1st, I have granted 84 certificates, of which 3 are of the first grade, 2 of the second, and 79 of the third; many of the latter are of high and excellent standing.

The average wages per month of male teachers is \$38.45, and that of female teachers \$31.82, showing a decrease in the former, and an increase in the latter, as compared with that of last year. The highest valuation of a school house and site (village of Galesville) is given at \$6,400, and the entire cash value of school houses is \$42,580, of sites, \$3,302, and of apparatus, \$1,262.43.

COST OF SCHOOLS.

The amount of money necessarily invested permanently in school property, and the annual expenditure involved in providing ample means for instruction of over six thousand children, scattered over a territory of eight or nine hundred square miles, as in this county, appears in the aggregate as a large sum, as the tax payers are forcibly reminded each year; and mainly because of this annual reminder, the impression has become quite general that the public schools are an expensive luxury at best, that the outlay is unreasonable and unnecessary; and the leading idea with many, otherwise intelligent and well meaning citizens in attending school meetings, and in employing teachers, is to cut down expenses.

It is also a very easy matter in almost any community to organize an aggressive and effective opposition to any measure for beautifying school grounds, adorning or improving the exterior or interior of school buildings, or for supplying even necessary working appliances for the school rooms, or providing for the comfort and health of the pupils.

Hence, too, arises much of the opposition to the county superintendency; the cost of maintaining which is made a conspicuous separate item in the annual tax list. Therefore the friends of educational progress should be prepared to meet this opposition and these objections by facts and comparisons, salutary in themselves, and which in the end must disarm even blind and unreasoning prejudice.

The amount expended for services of male teachers during the year is \$9687.41, and for female teachers \$10,449.66, making a total of \$20,137.07 expended for teachers' wages. Add to this sum the whole annual cost of the superintendency, including salary, \$800.00, expenses of the office, \$150.00, total \$950.00, making a total annual expenditure for teaching and supervision, of \$21,087.07. This sum amounts per capita of all the children of school age, to \$3.31, and

of the children enrolled, to \$5.43. Add to the sum actually expended in teaching and supervision, ten per cent. interest on the sum permanently invested in school property as before shown (47,144.43), amounting to \$4,714.44, and we have \$25,801.51, as the sum which may properly be charged to the schools. This amounts per capita of all the children to \$4.05, and of the enrolled to \$6.65. The entire annual cost of the superintendency being \$950.00, is, per capita of all the children of school age, less than fifteen cents, and of those enrolled less than twenty-five cents. These results may be safely taken as a fair average throughout the state. Two years ago Wisconsin stood twenty-second in the downward list of of states and territories in the expenditure per capita for school purposes, Massachusetts taking the lead at \$22, and Wisconsin standing at \$3.64 for all children, and at \$6.04 for those enrolled. These facts and comparisons should put to the blush those who raise, and those who echo the cry of reckless extravagance in school expenditures.

A very important question then arises as to whether the results of the school work are commensurate with the outlay, and in this matter the earnest advocates and upholders of our free school system should court the most searching investigation, and welcome the most unsparing criticism. An intelligent community cannot afford to allow weakness to become chronic through neglect, to suffer defects to remain unrepaired, or to consent even tacitly to the existence of an unchallenged error. However, the greatest question of all is not whether the schools are worth all they cost, but whether they are what they should be and might be, with the present or a slightly increased expenditure. And here opens a field of labor and thought, in which every person in the country is interested, for every person, whatever his social or intellectual position, exerts an influence, unconsciously or unwittingly it may be, which directly or indirectly affects the value and progress of the schools.

A low and depraved public sentiment will defeat the wisest plans and the most useful measures. A divided public sentiment is but little less destructive to human improvement. A lofty and unselfish public sentiment, combined with earnestness of purpose and active, persistent coöperation, paves the way for infinite progression.

GRADED SCHOOLS.

There are at present, four graded schools in the county; three

of which are fully organized and pursuing a regular course of study. These last are situated as follows: First and the oldest at Trempealeau, consisting of three departments. Second, at Galeville, also of three departments. Third, at Arcadia, of four departments. These are all well attended and in a flourishing condition, and the work is generally of a superior character. The school at Whitehall consists of two departments, but is not yet fully organized as a graded school. The village of Clair has just completed a building intended for two departments, but the school is not graded, and only one of the rooms is used at present. Two other schools would be greatly benefited by being organized into graded schools, which will probably be done in the near future.

IMPROVEMENTS.

Two good and commodious school buildings have been erected during the year, several others completed or enlarged, and yet several more have been renovated and re-seated with the most approved furniture, and a spirit of improvement is awakened that will probably continue for several years to come. There is certainly an ample field for operations in this direction.

FREE TEXT-BOOKS.

At the close of the school year, August 31, 1877, no districts had adopted the free text-book system, but the matter having been brought specially before the people through the persistent efforts of the state superintendent, seconded to some extent by a circular issued from his office, several districts have taken action on the subject, and probably during the year a large number will have adopted some one of the three plans provided by law whereby districts are authorized to purchase books directly from the publishers.

EXAMINATIONS AND INSTITUTES.

A careful examination of the schools during the first year of my present administration, convinced me that a large majority of our teachers, though earnest workers in the main, had no well settled, intelligent plan of operations or methods of procedure. They were dealing with words rather than ideas, with forms rather than philosophy, with definitions and facts rather than principles, with

details rather than essentials ; and, consequently, that the schools were heavy losers from misdirected effort.

As an introductory step in the direction of a comprehension of the teacher's true mission, of a deeper insight into the philosophy of human development, of broader general views, of a firmer hold of the keys that open the yet darkened recesses of the human understanding, of a loftier ambition and a deeper inspiration, of bringing into action, thought that stimulates and emotion that elevates, and to develop the personal power of loosening the clogs that have impeded their own progress and impaired their own usefulness, in fact to inaugurate a new professional life, I prepared with great care, for the spring examinations, a set of papers intended to test the knowledge and mastery of principles, the powers of application and illustration, the clearness of thought, and the accuracy and force of oral and written expression. The test proved a severe one to many, but it stimulated discussion and investigation, and most, if not all who attended the examinations, now acknowledge the wisdom of the measure and bear willing testimony to the personal benefits derived therefrom.

A normal institute of two weeks' duration was held at Trempealeau, commencing on September 3d. Prof. J. B. Thayer, conductor. The class consisted of 81 members, nearly all teachers. The ordinary statements that these annual institutes prove a success, has become superfluous. The normal institutes of Wisconsin are no longer an experiment. They have become a permanent institution, invested with the essential elements of success. An examination was held at the close of the institute, the results of which were to me highly satisfactory and encouraging.

THE BRIGADE OF IRREGULARS.

At the close of the public examinations, spring and fall, I am besieged by a swarm of irregular applicants for indorsements, renewals, very short, private examinations, and special licenses. The existence of such a class would not be suspected by the uninitiated. They are never heard of at any other time of year, but when the last public examination is closed, they are ready to spring from their lairs. Like another superintendent, I do not like to say that every one of them is a shirking, skulking teacher, but they are certainly in very bad company. As a class, they deserve public ex-

posure and public contempt. They are vampires, drawing the life blood from the schools and making no adequate returns. They are barnacles on the good educational ship, impeding progress, and should be exterminated at once and forever.

This class could not long exist without countenance and support from some quarter, and there still exist too many niggardly, short-sighted district officers, who seem to choose such persons as teachers in preference to all others, by some law of natural affinity. This class has received but little encouragement from this office, but they possess great tenacity of life, and die hard. As Marshal Ney said of the stolid Russian soldiers, "they must not only be killed, but pushed over afterward." They manifest a persistence which would command admiration if exerted in a better cause.

CONCLUSION.

From observations and comparisons, I am led to conclude that the teachers and schools of this county will compare favorably with those of surrounding counties. Faith and patience are as necessary in this department of educational work, as skill and perseverance. Much of the present labor consists in removing rubbish, laying foundations, and organizing forces; the future will demonstrate whether the work has been well and faithfully done.

VERNON COUNTY.

O. B. WYMAN, SUPERINTENDENT.

Some improvement has been made in the schools of this county during the past year, and there seems to be a growing interest on the part of school officers and the better class of teachers, to maintain profitable and efficient schools.

The examinations have been quite thorough, and show some advancement on the part of a large number of teachers of this county. Well qualified and experienced teachers are in good demand, and are frequently retained a number of terms in the same school. Some of the evils that result from a frequent change of teachers are ob-

viated by suggesting a uniform outline for teacher's work, and requiring programmes of daily exercises to be made and forwarded in duplicate to this office, during the first of each term.

By this means the efforts of teachers are directed in the same general direction, and the method of instruction is similar in most of the schools of the county.

In many districts liberal appropriations have been made for building purposes, and a number of new school buildings have been built.

The improvements in school buildings keep pace with the development of the county, and the number of really poor school houses is comparatively small.

An institute of two weeks duration was held at Viroqua last August, conducted by Professors W. J. Hutton, and J. M. Rait. The attendance was large as usual, numbering 124. The work was ably conducted and the results satisfactory. Our teachers show a laudable desire to improve all opportunities for better preparing themselves for their work, and the normal institutes afford excellent opportunities for that purpose.

Most of the districts have adopted a series of text-books; but in some the books adopted are not in general use. The tendency is toward a uniformity of books, but there are some districts that move very slowly in making needed changes. About twenty districts have purchased text-books, under chapter 315, laws of 1875, and sell them to scholars at cost. Nearly one-half of previous prices is saved by this method, and as far as adopted the provisions of the act, give entire satisfaction. It is likely that many more districts will make appropriations for a like purpose. In our opinion we have all the legislation on the subject of text-books that the interests of our schools demand.

The free high schools at Viroqua and Hillsborough are well attended and are supplying a need long felt in the educational interests of the county. Students now have an opportunity of receiving competent instruction in the higher English branches and may prepare for admission to the classical course at the university at these high schools.

Much still needs to be done by teachers, school officers and the friends of culture and education to bring our schools up to the high standard to which they should attain. From the work already ac-

complished, we feel that there is no cause for discouragement; but that there are new incentives for increased activity and continued labor to work for the further improvement of the schools of our land.

WALWORTH COUNTY.

FRED. W. ISHAM, SUPERINTENDENT.

The school work of the past year has been unusually prosperous, throughout the county. Each of the eleven graded schools has been in charge of competent and experienced teachers; while the teachers in the rural districts have shown by the quality of their work, that they are not unmindful of the responsibilities and requirements connected therewith. During the year, 375 candidates presented themselves for examination, of which number 238 have received certificates, divided among the three grades, as follows: first grade, 8; second grade, 11; third grade, 219.

At the spring examinations, no limited certificates were granted, neither were certificates granted to persons under seventeen years of age. Applications to "transfer" or "indorse" certificates from other counties and states, have been refused in every case.

Of the fifty teachers in the graded schools, twenty-six have had training in the normal schools, and of these, eleven hold diplomas. Several of the remaining twenty-four are college educated, and others are high-school graduates. The enrollment in the several village schools, for the month ending November 24, 1877, was as follows: Whitewater, 502; Delavan, 410; Geneva Lake, 380; Elkhorn, 247; Sharon, 173; East Troy, 155; Darien, 126; Genoa Junction, 107; Lyons, 89; Allen's Grove, 78; Troy, 66. Elkhorn, Geneva Lake, and Delavan are at work under the free high school law.

Profs. A. J. Wood and E. H. Sprague, both teachers of marked ability, have lately severed their connections with the schools at Geneva Lake and Elkhorn, respectively. Prof. Wood takes a position in the Chicago schools, and Prof. Sprague commences the study of law. In this connection, I cannot refrain from referring to the long list of those, who, during the past score of years have, at dif-

ferent times, been identified with the schools of this county. The list includes the names of Messrs. T. C. Chamberlin, O. R. Smith, A. J. Cheney, W. D. Parker, O. T. Bright, O. S. Cook, Robert Laing, Albert Earthman, O. M. Baker, Everett Chamberlin, George Skewes, W. A. De La Matyr, George Heath, Lewis Funk; Misses Anna W. Moody, Mary G. Sherman, Etta Carle, Lucy Foote, and many others, who, since then, have become more or less prominently connected with the educational force of the state.

About two hundred different teachers have had the management of our country schools during the year, three-fourths of whom are females, and mostly experienced.

Hundreds of dollars are being wasted every year, in our country districts by continuing the schools during the "heated season" of July and August. A large number of scholars are taken out, to engage in farm work, and those who remain are dull and listless. I advise the hiring of the summer teacher for five months, three months to be taught during April, May, and June, the other two in September and October.

The plan of hiring teachers for our country schools for the whole school year of eight or nine months, and then arranging the terms as seems best, is becoming more and more prevalent.

The annual institute was held in August, under the management of Prof. S. S. Rockwood, assisted by A. F. North. The enrollment was 110. The work was highly appreciated by the teachers.

During the winter, a series of very profitable teachers' meetings were held in accordance with the following schemes:

Walworth county, Winter of 1876-7, Teacher's Meetings.

MEETINGS WILL BE HELD AS FOLLOWS:

South-Western District —

At Darien, November 18th.

At Brick Church, Walworth, December 16th.

At Delavan, January 20th.

At Sharon, February 17th.

North Western District —

At Millard, November 25th.

At La Grange Centre, December 23rd.

At Whitewater, January 27th.
At Richmond Center, February 24th.

North-Eastern District —

At East Troy, December 2nd.
At Vienna, January 6th.
At Grove Corners, February 3rd.
At Troy, March 3rd.

South-Eastern District —

At Geneva, December 9th.
At Genoa Junction, January 13th.
At the "Boyd School House," Linn, February 10th.
At Lyons, March 10th.
UNION MEETING, at Elkhorn, at the Spring Institute.

Fellow teachers, you who have identified yourselves with the profession, let us give these monthly meetings a fair trial. By your prompt and regular attendance, these meetings may become a source of great benefit to yourselves and the schools in your charge, and serve to arouse the educational sentiment of the communities in which they are held; by your neglect and non-attendance, the most persistent efforts of the superintendent will be of little avail.

The meetings provide for four days of regular Institute work, upon subjects actually taught in common schools. A roll will be made, and record of attendance kept. Local school-boards are requested to lend their aid to the work, and all friends of education are cordially invited to be present.

SCHEME OF WORK.

TOPICS.	FIRST MEETING IN EACH DISTRICT.	SECOND MEETING.	THIRD MEETING.	FOURTH MEETING.
Arithmetic.....	Notation of whole numbers; scales.	Fractions, Common and Decimal.	Simple Interest.	U. S. Securities, bonds and notes.
Geography.....	Lines, Circles, Zones, Degr's.	Outline Map of North America, contour and relief.	Railroads of Wisconsin.	Land Survey, Townships and Ranges.
Constitutions ..	Origin of the Constitution of the U. S.	Presidential Elections.	Process of Law making in the State.	Judiciary of State and U. S.
U. S. History ..	Early discoveries in America.	Colonial forms of Government.	French and Indian War.	Territorial growth of the U. S.
Grammar	Parsing and Analysis compared.	Conjugation of Verbs.	Infinitives and Participles.	Letter Writing — Capitals, Punctuation.
Spelling	Word Analysis, Prefixes and Suffixes.	Rules for Spelling.	Geographical Names.	"Spelling Down" Exercise.
Reading	Phonics. Marking of vowels in monosyllables and accented syllables.	Marking of Vowels in unaccented syllables, and of Consonants.	Analysis of Thought.	American Literature.
Theory and Art, discussion....	School Organization.	School Discipline.	Recitations — Objects, Methods.	School Records.

"By reference to this scheme, any teacher in the county may ascertain just when, where, and what the nature of each meeting in his or her inspection district will be, and will thereby have ample opportunity to make thorough preparation therefor.

"Every teacher at work in the county, all intending to teach the coming year, and the advanced pupils of our public schools, are

earnestly invited to prepare for, and attend these meetings. The superintendent will call to his aid in conducting the exercises, the best teachers of the county; and such additions to, or variations from the above scheme will be made, as shall tend to improve the character of the meetings.

FRED. W. ISHAM,
County Superintendent.

Several districts are moving in the matter of building new school houses. Most of the school buildings of the county are in good condition. The schools are, in the main, well supplied with apparatus, though the annual report hardly shows it.

No special improvement is observable in the accuracy or satisfactoryness of the annual reports this year. I am satisfied it is not the fault of the town clerks. School districts are not supplied with suitable books of record, etc. They should be supplied with blanks for teachers' contracts, for notices of annual meetings, for orders on the treasurer, etc. I am constantly receiving inquiries in regard to blanks. Many have none, nor do they know where to obtain them. A supply of necessary office blanks, furnished by the state, free or at cost, would aid in securing accuracy in the annual reports.

I have visited most of the schools of the county once, during each term. On account of the large number of schools to be visited, I have been obliged to visit an average of three schools a day.

Notwithstanding the necessary briefness of the visits, I am confident that this portion of my duties has been far from unprofitable to both teachers, scholars, and school patrons, while I have been able to more closely estimate the abilities of the teachers.

WASHINGTON COUNTY.

S. S. BARNEY, SUPERINTENDENT.

It would be a very easy matter to say in general terms that our schools are progressing, and that the cause of education is being advanced in this county, etc. I prefer, however, to make no such sweeping assertion for the reason that there are so many factors which help to make up such a product. I will give you a brief

account of some things we are doing with the hope that they are steps in the right direction.

TEACHERS' LIBRARY.

In accordance with a suggestion of the state superintendent, made at our institute in August, we have taken the initiatory steps towards the building up of a teachers' library in this county. We are trying to obtain one dollar subscriptions from our teachers for that purpose, and thus far they have willingly responded. At the last meeting of our county board of supervisors we obtained from them an appropriation of fifty dollars for our library, which, together with what we have raised by subscription, makes the handsome sum of one hundred dollars to be invested in books. We have already purchased a few and will expend the balance of our funds in a few days. If we succeed in adding so large an amount every year, it is needless to say that in a very few years we will have a large and useful library.

TEACHERS' MEETINGS.

It is a source of gratification to me to be able to make the assertion that our County Teachers' Association is a complete success. Where at first we were scarcely able to get out a "corporal's guard," at any of our meetings, now the room is crowded at every session. No urging is necessary to secure an attendance, and the most lively interest is manifested in the work to be done. The teachers in some localities have formed *town* associations, and meet weekly or fortnightly on Saturdays, at the school room of some of the teachers, and spend the whole day. The schools at the places of meeting are in session, and thus the teachers of the term travel the circuit from one school to another. It has appeared to me that this plan for a teacher's association is a good one.

TEXT-BOOKS.

The text-book question with us has been and is a vexatious one, as I believe it is everywhere where they have a free school system. My own opinion is that its solution is to be found in adopting the plan of district purchase. It seems to me that in this way every evil growing out of the prevalent haphazard purchase of books will be eradicated, and the possible and probable danger of fraud and

dishonesty to grow out of a state publishing system will be avoided. This being my view upon the subject, it is needless for me to say that I do not think any further legislation on the subject is necessary.

A few districts in this county have already adopted the free text-book system prescribed by our school code, and it gives universal satisfaction. Many more districts are about adopting it, and have sent committees to consult with us regarding the selection of books. I say, stop legislation where it is, and if the county superintendents will make the proper effort in coöperation with the state superintendent, it will be but a few years before we will have all the uniformity of text-books desirable, and free text-books in almost every school.

I do not think the friends of education generally want a uniformity of text-books *throughout the state*; they only want a uniformity in every school room. In this way, if the books are purchased by the district, no money will be lost on account of migration of families, and what is still better, none will be *stolen* by hungry public contractors.

WAUKESHA COUNTY.

JOHN HOWITT, SUPERINTENDENT.

In connection with my second annual report, I submit this short special report, which may throw some light on the educational work of Waukesha county. In reviewing the entire educational work of the county, I have the pleasure of reporting that during the past year the schools have kept pace with the progress of the times; that their efficiency has been increased, better facilities have been provided, school officers, patrons and teachers have shown a very commendable interest in the work and cause of education, and the upbuilding of our common school system, which is the bulwark and foundation of our republican institutions. And here I might state, with all candor, that the people of Waukesha county, in general, have always manifested a great interest in their common schools,

and they appreciate them to a high degree, as well as all educational institutions of worth or merit.

Waukesha county, containing about 30,000 inhabitants, is divided into 119 districts, requiring 138 teachers. Of these districts, Waukesha Union consists of seven departments; Oconomowoc city school, five departments; Pewaukee village, three departments; Menomonee village, two departments; Merton village, two departments; Mukwanago village, two departments; Hartland village, two departments; Genesee village, two departments; Delafield village, two departments; Eagle village, two departments. There are other village and districts schools in the county, which ought to be graded on account of the number of pupils to be taught by one teacher in an overcrowded school-room. Certain districts have seen the propriety of enlarging their buildings, and have taken active measures for building the coming summer. Waukesha county, comparatively speaking, is an old county, and a majority of the old school houses have been replaced by commodious buildings, with the latest improvements in seating, etc., and we trust that it will not be long before we can say the same of the few old ones remaining.

The facilities, in this county, for the youth to obtain a higher education, as well as a common school, are excellent. Among the more noted schools I may mention Waukesha Union, Oconomowoc city school, Pewaukee high school, Oconomowoc seminary. Carroll college, which is so pleasantly situated at Waukesha, and under the supervision of Prof. Rankin, still holds a most essential place in the education of the youth and the teachers of our county, and from it we are supplied with a number of first-class teachers.

A larger number than usual have been nominated by the superintendent to the normal schools of Whitewater and Oshkosh. Our county is largely represented in the normal schools of the state, and at present not a few of our schools are being taught by those who graduated from or attended the normal schools, and they are teaching very successfully, and giving excellent satisfaction generally. I think, by all means, that the normal schools of the state ought to be well sustained and supported, as they form a most essential element in the education of our teachers.

In relation to our teachers, I would say, it would be hardly possible to gather an equal number of more conscientious, hard-working and faithful teachers than ours of the past year. Indeed, I am

glad to say, as a general rule, they have manifested a most commendable interest in fitting themselves for the work, and I think it but simple justice to them, when I say they are laboring earnestly and faithfully in their profession.

The census of August 31st, 1877, as reported by town clerks, shows 11,252 children between the ages of four and twenty years, an increase of 716 over last year. Of this number, 7,104 were reported as having attended public schools, and 330 private schools.

At the last annual school meetings several districts have taken measures to build new school houses the coming summer, and others for making necessary repairs; so by the continued efforts of our people, we hope soon to see our county well supplied with comfortable school houses, well furnished for the comfort and well being of both teachers and pupils.

The text-book question has been brought before the people of the county, during the past year, and they have taken hold of it with considerable interest; but some have hesitated, not knowing what the next legislature would do, and have delayed making any change in their respective districts; but I have no doubt that during the next year more changes will be made in relation to text-books, as there ought to be a more uniformity of text-books throughout this county. The great variety of text-books which we have in our country schools, I think, is a great detriment for the pupils' advancement and interest of schools. I have recommended to district boards that they adopt some series of text-books to be used in their respective districts, which would prevent the frequent changes which are being made in certain districts to the detriment of the schools; and I am glad to say that there has been quite a material increase in the number of districts that have formally adopted a series of text-books.

The plan of district purchase, under chapter 315, laws of 1875, has been adopted by some districts, and, I should say, as far as I have heard, has given general satisfaction where it has been tried.

The plan of free books, as authorized by law, is in operation in a few districts of our county, and seems to be working successfully and meeting with approval; but I give the preference to the plan of district purchase, and selling to the pupils at cost.

During the past year nine public examinations have been held. Number of certificates granted to male teachers of first grade, 5;

second grade, 4; third grade, 47; total, 56. Number of certificates granted to female teachers of the first grade, 1; second grade 4; third grade, 160; total, 165; total number of certificates, 221; total number of different persons employed in teaching during the school year of 1877 is 218. We had to issue a few limited certificates to supply the demand of the schools (as quite a number receiving certificates did not intend to teach, but simply to attest their knowledge of the subjects). Our teaching force is not large, but there is enough to supply the demand of our schools. The teachers of this county seem to put forth every effort to obtain a higher grade of certificate, as well as a higher standing in the branches examined, and I think I am justified in saying that the teachers of Waukesha county will compare favorably with those of any county of the state in relation to education, government and ability to teach.

Number of school visits made by the superintendent, 240. All the schools in the county have been visited twice during the past year, except one, whose term had closed on account of sickness.

A very interesting and profitable institute was held in the village of Waukesha, for one week, commencing April 2, conducted by Prof. Salisbury, of the state normal, at Whitewater.

A lecture was given before the institute by Pres. Phelps, of the Whitewater normal school; subject, "School Government." Number of working members enrolled, 105. The instruction given to the institute was very commendable as it was practical in all its bearings; and the teachers, I think, carried away the instruction received with profit to themselves, and the schools under their supervision.

We would not say anything boasting, yet we have much to encourage us. While some obstacles have been removed, and much has been accomplished in different directions to promote the welfare and advancement of the schools, still there remains a large amount of labor yet to be performed to remove all obstacles that hinder the complete work. The spirit of real improvement does not look backward to the past, but forward to a brighter and more glorious future.

WAUSHARA COUNTY.

W. T. WILLIAMS, SUPERINTENDENT.

Herewith transmitted is the annual report, which is more correct than the one sent you last year from this office. The town clerks' reports were nearly all correct, which certainly shows that better men have been elected, or that they attend more strictly to business.

PUBLIC SENTIMENT.

The good people of the county are more than ever interested in school work, and the public sentiment is strongly in favor of securing a better class of teachers, so that any effort made to improve our schools by those to whom our school work is entrusted, meets with a hearty approval and coöperation.

SCHOOLS.

No serious quarrels in any school. No teacher has been dismissed, although a few might have been with profit to the district. Teachers lack most in executive ability. This want often springs from oddity or eccentricity. A teacher that is awkward, uncouth in manners, does not win the affection or respect of the pupil. District boards are often in a great measure responsible for the failure of the school—they unwisely looking too closely to the financial side only of the question.

CERTIFICATES.

The whole number of certificates granted the past school-year is 185. Of those, 4 males received first grade, 6 males and 9 females second grade, 45 males and 140 females third grade certificates. Many of this number wrote in both examinations, and received two certificates. The whole number of different persons who received certificates is about 160. A number taught in other counties, others did not wish to teach, and as 97 teachers are required to teach our schools, there is not such a surplus of teachers here as in some counties. Last spring no limited certificates were granted unless the district board sent a written request. The same course will be pursued this fall.

SCHOOL HOUSES.

One good school house was built, in the town of Marion. It has patent desks, and is a credit to the district and builder.

APPARATUS.

Many districts have procured apparatus, as will be seen in the total cash value of such this year, as compared with the same item in last year's report. Outline maps hang in nearly all our school-houses, and some have valuable globes and charts.

NORMAL INSTITUTES.

Last fall an institute was held at Wautoma. There were 78 in attendance. Professor Graham conducted it one week. Good work was done. In the spring the county institute was held at Pine River. The attendance was unusually large, 120 names being registered. The school-house not having sufficient seating capacity, the institute was held the last four weeks at the church. Both of these institutes were held for a term of six weeks each. Mr. S. Barker assisted in the fall, and Mr. T. S. Chipman in the spring.

TEACHERS' ASSOCIATIONS.

Meetings were held at Wautoma, Pine River and Hancock.

MONTHLY REPORTS.

No monthly reports were required. Term reports at the close of the term were sent to the superintendent and were of much value. A notifying report was sent by each teacher. This report gave the time of commencing school, length of term, number in attendance and name of district clerk, that the superintendent might visit all the schools ere the close of the term.

UNIFORMITY OF TEXT-BOOKS.

Nearly all districts now purchase text-books and loan them to pupils.

The following circular was sent to district clerks previous to the annual meeting:

WAUTOMA, August 21, 1877.

"To district clerks in Waushara county — The annual school

meeting will soon be held, and I would like to call your attention to the following subjects and needed changes:

"The annual meeting should be held the last Monday in August. Most of the districts now do so. The *annual report* can be more easily made if held then.

"I trust the annual report will be carefully, promptly, and correctly made, and returned in time to the town clerk. If you do not receive the report blanks, notify the state superintendent at once.

"I would recommend that there be at least seven months school in each district. It is a poor policy to give the child five months' school to learn, and have seven months' time to forget.

"The schools ought to commence at least one month earlier than is usual, or have a shorter vacation between the winter and spring terms of schools. In villages and cities three terms of school are held, commencing about September 15, and closing before July 4. Our schools are little more than a name during the hot weather of July and August.

"In hiring a teacher, see that the applicant has a good certificate. There are enough good teachers in our county to supply all the schools. *Get the best teacher.* More male teachers should be employed in the winter term. I call your attention to the circular regarding the purchase of text-books by the districts, sent you by the state superintendent. There is no doubt that all districts in our state will soon purchase text-books directly from the publishers.

"I invite district clerks to visit the normal institute, and judge of the work done by the teachers present. I earnestly ask you to visit the school next term, and frequently, and have the other members of the board do the same. See that the blackboard, dictionary, and other necessities are in good condition, and do all you can to insure the success of the school."

The school year has passed pleasantly and profitably.

REPORTS OF CITY SUPERINTENDENTS.

FORT HOWARD.

W. J. BARTRAN, SUPERINTENDENT.

In accordance with your suggestion, I herewith submit in connection with my annual report the following remarks relative to the condition of our schools.

Last July I was appointed superintendent of city schools to fill the vacancy caused by the death of Robert Chappell, an old and esteemed resident of this place, and a faithful worker in the cause of education.

I found our public schools, as regards methods of instruction, and scholarship, in a very good condition, and in regard to the corps of teachers employed in the schools of this city, I will say that such general satisfaction was given that all the teachers who were with us last year, with one exception, were re-elected by the board.

It is our plan to avoid, as far as possible, the confusion and loss of time and money that are liable to result from frequent changes of teachers. A year's acquaintance with the peculiarities of pupils and with the special demands of a place, should render the services of an efficient teacher still more valuable and demand a more positive recognition of worth on the part of patrons and school authorities. Our schools were never before in better condition than now, and it shall be our aim to maintain a high standard of public instruction and discipline by employing none but practical, efficient and professional teachers.

Our school board are earnest and harmonious, and the people cordial in support of their measures for sustaining a high character in the management of our schools.

Our schools are now thoroughly graded, and we graduated the first pupil from our high school department last June. A revision

of our high school course is required, and may be effected during the present year, so that students may fit themselves for admission to any of the colleges of the State University.

Teachers' meetings are held regularly once in two weeks; every other Saturday being the time fixed, by a standing rule adopted by the board, for such meeting. About all that has been attempted heretofore, is the discussion of questions relating to school management, but hereafter recitations in some of the branches taught in the schools will be regularly conducted. I am fully convinced that such meetings properly conducted are of great practical benefit.

The plan of examining applicants for places in our schools, and making the result of the examination the basis, in part, of the appointments, has been inaugurated, and the result, I am confident, will be highly satisfactory to every one who feels a deep interest in the success of our schools.

Our citizens here are becoming more thoroughly impressed with the importance of giving their children a good common school education, and to secure this end they depend wholly upon our public schools.

GRAND RAPIDS.

THOS. W. CHITTENDEN, SUPERINTENDENT.

I herewith submit the annual report, required by law, concerning the school of this city, in all its various branches.

The present incumbent was called to the office unexpectedly to himself, and under circumstances which placed him at a great disadvantage. His predecessor, an officer of large experience and skill, had been compelled by the pressure of his own private business, to resign, and the present superintendent was chosen by the board, in the emergency thus suddenly arising, to fill the vacancy so caused as best he might. Thanks to the excellent system of management which he found in operation, the many kind hints received from the former incumbent, and the cordial co-operation of the members of the board, the task has been lighter than it would have been without these, and the superintendent takes this

opportunity of returning sincere thanks to his predecessor in office and to the members of the board of education for the kindness which he has constantly met at their hands.

There is little to add to the statement embodied in the report and census paper which accompany this. Our school has continued to thrive under the charge of the excellent corps of instructors which we have had the good fortune to secure; thanks to their efforts, the standard of scholarship has been steadily rising, until, at the present time, it is believed to be second to that of no similar institution in the state.

The high school department has been in operation for three years at least, and has graduated a class numbering six or seven for two years out of the three. Examination of the graduating class at the close of the last school year showed that they were deficient to a certain extent in some of the studies pursued, not through lack of careful, conscientious work on the part either of the class or of its instructor, but through want of sufficient time to carry out the prescribed course. No certificates were issued, therefore, but notice was given that any member of the class might obtain one upon presenting him or herself to the superintendent and passing an examination which should be satisfactory to him. As yet, however, no one has taken advantage of the permission thus given.

At the charter election held in the city last spring, a formal vote was taken by the electors of the district, in favor of organizing the district under the Free High School Act of 1875. Subsequently to that act of the electors, the act of '75 was amended so as to admit high schools previously established to its benefits. So, although an examination had been made, as required by the law of '75, it was decided that the report should be made as required by the amendment of 1877, and such report is accordingly embodied in the return herewith made. The questions and examination papers written under the earlier act are on file in this office, however, subject to the order of the state superintendent.

LA CROSSE.

C. W. ROBY, SUPERINTENDENT.

In my annual report will be found complete statistics, so far as has been required by the state department. The number of children of school age residing in the city on the 31st day of August 1877, was 3,620. Of these, 2,047 have attended the public schools, and eight hundred have attended the different private and religious schools, leaving 773 as the approximate number of children not attending school at all. Taking into consideration the fact that many of our best families do not send their children to school until they are at least six years of age, and also considering the fact that a large per centage of all complete their school life before reaching the age of eighteen years, we conclude that but very few who ought to have attended school have been left untaught; and right here we wish to add that it is our firm conviction that the law should be so modified as to exclude from the public schools all children under six years of age. All that is necessary and proper for children to learn, prior to this age, can be more properly learned at home or at the Kindergarten, which latter school we can hardly expect the public to support at present.

The per cent. of attendance of the number resident in the city, is fifty-eight. We see in this an increase of several per cent. over that of previous years. The religious schools of the city are numerous and fostered with great care. This accounts for the small per cent. given above. The attendance on all schools in the city is about eighty per cent. of the number resident in the city, and the per cent. of attendance on the enrollment in the public schools, is ninety-four and one-half. This would have been some larger had not the scarlet fever and measles been so prevalent during the months of March and April. The per cent. of attendance during the other months has been unusually large.

In the matter of *punctuality* we challenge comparison and competition with any other city in the state. For several months, with an enrollment of nearly 1,600 pupils, we recorded less than a dozen cases of tardiness per month, and but three hundred and forty-one cases were reported during the year of ten months. When a child is reared under this influence he passes from school to the active

duties of life with true American energy and promptness, and it is scarcely possible for him to become the unreliable makeshift who too frequently tortures the more punctual with whom he unfortunately comes in contact in business circles. Considering the great importance of punctuality through life, we ask are we, as is sometimes asserted, attaching too much importance to this subject in our schools?

All teachers are required to report cases of corporal punishment immediately to the superintendent, and our object has been to discourage its practice as much as possible without prohibiting its use entirely. The result is that corporal punishment is less frequent than heretofore. Our rules relating to incorrigibles are very stringent, and yet in this matter there is still something lacking. We occasionally find one whose home training is such that he becomes unmanageable and is suspended under the rules. This often proves an injury both to the pupil and the school, as it is frequently the case that more disturbance is caused by his influence outside than would have been had he remained in school. If there were some provision made for sending such pupils to a suitable reform school immediately upon expulsion from the public school, much benefit would be derived by the pupil, and the school would not be subjected to his bad influence.

With the excellent attendance which we have been enabled to secure, the scholarship of the different grades has been very satisfactory. A new course of study specifying the work for each term in all grades outside of the high school has been adopted, and by requiring more uniformity in the examinations in all the grades throughout the city, our schools have become more closely graded and systematized.

HIGH SCHOOL.

The course of study for the high school has been fully revised and extended from a three years course to a four years course, and embraces an English and a classical course, with German for all, if desired. It is our aim to prepare young men and women either for the active duties of life, or for entering higher educational institutions. It has been our aim in this revision to give the natural sciences and English branches more prominence, while not ignoring the ancient languages; in other words, to ascribe to each its proper

place and importance in the course. We have kept this fact in view, viz.: that to make a high school profitable, we must teach what the masses require, and what will be of value in practical life. Plainly this is not Greek, Hebrew, or Latin alone. These branches are important, proper and necessary to those who can obtain them and desire to obtain them, after having secured the more elementary and practical branches of the home school, and we would prepare them for entering the classical course at college; but it cannot be the province of a public high school supported by the bone and muscle of a laboring community, to make pupils proficient in the ancient languages to the exclusion of other branches. Our high school as at present organized is doing an excellent work, and in respect to usefulness stands, as we believe, second to no other in the state. Prof. H. O. Durkee, with his ripe experience, aided by a superior corps of assistants, is doing a highly satisfactory work. In July last, 54 pupils from the first grammar grades of the city presented themselves for admission to the high school. After thorough examination 45 were admitted, and at present this school enrolls more than 100 pupils. We are much in need of a high school building more roomy, with proper and special appliances for the different departments of high school work, and I am pleased to be able to say that there seems to be a disposition favorable to erecting a suitable edifice for this school, at an early day, that will be in every sense an ornament to the city. Our board has already asked the appropriation of \$5,000 for the purchase of a high school site.

We have just completed an \$8,000 brick building for the 5th ward central school. This has a seating capacity of about 220. We have also three other large central buildings, which, with the additional branch buildings, increases our seating capacity in the city to 1,743. Perhaps the most distinctive and excellent feature of our ward schools is that of placing each under the immediate charge of a first class male principal, who is liberally paid and well sustained by the board, and is made to a large extent responsible for the success of the different grades in his ward. Unusual care has been used in the selection of these principals, and many of them are men whose abilities and qualifications fit them for schools of much higher grade. The grammar departments of the second ward schools are in a highly prosperous condition, and operate as feeders

for our high school, giving a good foundation for continuing studies of a higher order, for those who are able to do so. And those who are not able to do this are well prepared in the rudiments of an education for every day business. Our grammar schools do a portion of the work usually done in the high schools of other towns of the size of La Crosse.

Our teachers' association has been full of interest during the year. This association is held monthly. The exercises are such as to be of value to the teachers in their daily work. Aside from the general meeting, a local meeting in each ward is required monthly and is under the direction of the principals. In conclusion, I would add that with a progressive and judicious board of education, backed by an intelligent and liberal common council, we are enabled to keep fully up with the times, by enlarging and improving our educational facilities.

8—Supt.

[Doc. 16]

UNIVERSITY OF WISCONSIN.

Annual Report of the Board of Regents to the Governor.

To the Governor of Wisconsin :

In transmitting to you the annual report of the Board of Regents of the University of Wisconsin for the year ending September 30, 1877, permit me to congratulate you upon the additional evidences therein presented of continuously rapid and wholesome progress in this department of public education.

During the past year Science Hall has been completed, furnished and occupied; the magnetic observatory has been completed, equipped and placed in operation; an efficient system of water works and drainage has been constructed; gas and bath rooms have been added to the healthful and necessary conveniences of Ladies' Hall, and other important improvements and repairs effected, many of them hitherto reluctantly delayed because of deficiencies in the financial resources at the command of the board. Important additions, by purchase or contribution, have also been made during the year, to the collections in natural history, to the gallery of arts, to the law and general libraries, and to the scientific apparatus of the University.

The final report of the building committee, including a statement of disbursements in the construction of science hall, the magnetic observatory, and other improvements and appurtenances, and the annual reports of the secretary and treasurer, accompany this report. The Board of Regents does not hesitate to invite the most rigid scrutiny as to the extent and character of the expenditures, especially as to that portion of them which relates to the special improvements above enumerated. The duties of the building committee involved continuous responsibility and laborious per-

sonal service for a period of nearly two years, without pecuniary compensation, and those duties have been discharged with a general efficiency and persistent integrity of purpose which cannot fail to command public approbation. It is the unanimous conviction of the board of regents that larger and more practical results could not have been secured at the same cost. Actual and intelligent inspection of these improvements will emphatically confirm the conclusions of the board.

In transmitting to you the annual report of the board of regents one year ago, I had the honor to inform you of a gratifying testimonial of public confidence in the University, in the donation of a considerable sum of money then proposed by Hon. John A. Johnson, of Dane county, in trust for the benefit of worthy students seeking the advantages of liberal education. The conditions of this donation have been confirmed during the past year by an actual payment into the treasury according to the terms stipulated, and the beneficent purposes of the donor will be hereafter realized.

It is now my gratifying duty to announce in behalf of the board, that the liberal donation of the preceding year has been supplemented during the past year, on the part of another distinguished citizen of Dane county, by a further act of private munificence, of still greater consequence to the permanent usefulness and reputation of the institution committed to our charge. I refer to the proposal of ex-governor Cadwallader C. Washburn to erect upon the grounds of the university during the coming year, for the benefit of the university, an Astronomical Observatory, equipped with superior facilities for investigations in astronomical science; such observatory to be constructed and furnished wholly at the personal cost of the donor. The act is one which reflects special honor upon its author and upon our state, and goes further to establish our claim to honorable rank as a progressive and enlightened people than any degree of material prosperity.

It is logically assumed by the board, that the acts of private beneficence cited are evidence of public confidence in the existing administration of university affairs. But this is not all. The board also assumes that these acts are based, at least impliedly, upon confidence in the permanent good faith of the state to all its existing legal and equitable obligations with respect to the University and its income. Those obligations, therefore, possess the na-

ture and equitable force of a contract, not merely with reference to the authorities of the University, but also in respect to those public-spirited citizens who have so nobly contributed from their private property to its permanent endowment.

We cannot too frequently recur, in this connection, to the fact that by its own fundamental law, the state originally was as definitely and positively committed to the establishment of the University as to any other means or grade of public education. By the voluntary acceptance, moreover, of repeated acts of the national legislature, and by many times repeated acts of its own in conformity therewith, and in acknowledgement of the sanctity of its trust, the state is now as definitely and positively pledged to a faithful and equitable execution of its guardianship over the rightful property and the lawfully determined income of the University, as to any permanent policy of legislation relating more directly to the material welfare of the people. And when "a wise liberality" on the part of the state is exhorted or commended, it means that liberality implied by good faith to constitutional obligations, and by an honest guardianship of property committed to its hands—and no more.

We believe it to be true, however, that no money can be expended in any department of public service with greater certainty of immediate and valuable results. The University is now offering to the young men and women of the state opportunities for attaining a knowledge of the natural sciences and practical arts, rarely surpassed. The state can largely and safely rely upon those who improve these opportunities for the development of its natural wealth; for the utilization of its material resources; for the boon of public order, and for the other innumerable blessings of an enlightened and progressive civilization. To-day the graduates of our own University are mining, building, teaching, investigating—in manifold ways and by manifold devices—developing, multiplying and utilizing natural forces and capacities of progress otherwise inert. And these compensations for enlightened legislation, as we have seen, are already supplemented and multiplied by notable acts of private bounty, of large actual and prospective value in any proper estimate of the educational resources now at our command.

In this place, permit me to protest against the false impression, sometimes unfortunately entertained, that University education

conflicts with more special methods of liberal culture, and that the progress of the one depends in some way upon the obstruction of the other. No such conflict of interest actually exists. In purpose and theory, the University is pre-eminently catholic and non-sectarian. Under the obligations of law and the rules of the board, its courses of instruction can have no reference, by precept or example, to special forms of religious worship or belief. It does not seek to add to or detract from the patronage or influence of educational institutions of adverse character in the respects named. Its doors are open only to such as prefer its method and standard of public education; and this under such circumstances as to warrant the assumption that all, or nearly all, who avail themselves of its privileges and its honors would otherwise be practically denied the advantages conferred. In the nature of things, it is the only system of education which the state can establish or directly promote. Clearly, to depreciate this means of enlightenment and progress is not to build up other departments of education, but to limit and diminish those which exist.

The original plan of the University, in those things which most relate to practical conveniences and exterior form, now rapidly approaches completion. The construction of the astronomical observatory during the ensuing year, and the subsequent erection of an assembly hall, with suitable accommodations for the rapidly growing library, will complete the list of University buildings so often presented, and so earnestly urged upon legislative consideration. With foundations thus substantial, permanent and secure, no apprehension need be indulged in as to the future of the institution. It offers to us at the present time, the gratifying prospect of continuously healthy and normal growth in every facility for the fulfillment of its grand office, as the central source of higher educational influences within the state. Apparatus for scientific investigation, machinery for instruction in practical mechanics, books, furniture and works of art, are yet in greater or less degree deficient. But all these are believed to be attainable hereafter, as necessity or convenience may require, by gratuitous contribution or by purchase from the annual University income.

As to the internal administration of University affairs, there exists no present occasion for doubt. It is characterized in all departments by enlightened energy and vigor. This fact is sufficient-

ly attested by the rapid increase in attendance upon the higher courses, by the elevated standard of instruction, and by the high rank which the University has now attained in public opinion at home and among institutions of its class abroad.

Some apprehension is felt that the indefinite legal and administrative relations of the Board of Regents and the Faculty may possibly prove a hindrance to the largest progress of the University in the future. Special ability and fidelity on the part of those intrusted with large responsibility in the government of the University, tend to increase rather than diminish the causes of this apprehension. By the act of reorganization, it is provided that "the government of the University" shall vest in the Board of Regents. By the same act, "the immediate government of the several colleges" is intrusted to their several faculties, but reserving to the board of regents the power to regulate courses of instruction, to prescribe the authorities to be used in the several courses, to confer degrees and to grant diplomas. It was the manifest purpose of the state to vest in the regents primary authority as to expenditures, appointments, courses of instruction and degrees; but there is nothing in the act defining the precise extent to which this authority can be rightfully exercised, without infringing upon the prerogatives of the instructional force in "the immediate government of the several colleges." The dividing line of duty and authority is thus left sufficiently uncertain to permit differences of opinion in the practical administration of affairs. Expediency, therefore, seems to dictate the enactment of amendments to the law, in respect to the several departments of the University government, so clear and precise as to forbid the possibility of discordant opinion. Fortunately, under existing circumstances, the removal of all obscurity in the law is of far greater consequence to the prosperity of the University than the relative measure of power conferred.

The plan of the University is wisely such as to permit indefinite expansion within its proper educational sphere. Its courses of instruction may consistently refer to all branches of practical and professional knowledge. But it was intended to be something more than a resort for lectures and recitations. It is also the appropriate repository of all that pertains to the pursuit and dissemination of knowledge under the general patronage of the state. Its

libraries, its gallery of art, its illustrative apparatus, and its collections in geology, botany and natural history, serve as essentially to define its character and to promote its power for public good as its courses of instruction; and obviously within its walls should be centralized all the material agencies the state aspires to possess of value to the ambitious student or advanced scholar. The substantial independence of university departments under the law renders this practicable, with advantage to every interest concerned.

The question of perpetuating the present system of co-education in the University has been revived by the report of the board of visitors, present at the last annual examination. This report, together with the comments of the President of the University upon the same subject, in his annual report to the Board of Regents, is herewith submitted.

The argument of the board of visitors relates more directly to the degree of education which female students are physically enable to acquire within a given time, than to the expediency of co-education in the abstract. We are furthermore assured, in a semi-official way, that the board of visitors do not wish to be understood as recommending a denial of any of the existing privileges of the University to any class of students, but as suggesting, simply, such modification in the courses of instruction as will render them available to female students who may prefer less exacting mental labor, and a minor degree of culture.

It is not claimed that the problem of co-education has been finally determined, in its relation to capacity for mental culture, and still less in its relation to the personal association of the sexes in our universities. Nor is this problem in either respect one which can or ought to be determined upon special data, or upon limited observation and experience, here or elsewhere. The whole civilized world is concerned in the experiment, and by the final judgment of all the parties to the controversy we shall be forced to abide.

However that may be, no doubt ought to obtain as to the duty of the University to maintain that high standard of instruction by which alone it can claim an honest title to its proper rank and name. And if, unfortunately, there are students, or classes of students, unfitted by nature or preparatory training for that extent of progress and intellectual development necessary to entitle them to the

honors and rewards of university education, obviously their place is elsewhere.

This view is further enforced by the fact that, by the law and theory of its organization the University occupies a specific position in the general plan of public education, with duties limited to a special plane of educational service. Between its work and that of the common school, the high school, the private school, the academy or the boarding school, there is justly no conflict or confusion of energy, and can be none while neither seeks to usurp the proper functions of the other.

So far as co-education refers specifically to the personal and social relations of the sexes, however, ordinary prudence suggests a considerable degree of conservatism. While we cannot consistently lower the standard of university education, there certainly exists no obstruction to the enforcement of such rules of discipline in respect to students in attendance upon the University, as best conform to the average views of parents and guardians, and a wholesome public opinion.

The board of regents acknowledges the receipt, from the commissioners of the centennial exposition, of a bronze medal awarded to the University, in consideration of "its bound volumes of catalogues, regents' reports, examination papers by students, albums of work in drawing, plans of grounds and buildings, a history prepared for the exhibition, important representations from its mineralogical collection, and for the extent and variety of its exhibits, which, together, furnish evidence of the recent activity and growth of the institution."

Accompanying this report will be found a diagram, showing the interior plan of the magnetic observatory.

In conclusion, permit me to state that the chief considerations which have hitherto induced many of the young men and women of Wisconsin to go without the state in pursuit of a liberal education, have disappeared. In all the departments of literature, science, and law, every essential facility for the acquisition of knowledge and mental discipline are now attainable within the state, at a relatively moderate cost. This progress has rendered possible more appropriate relations between the university and the high schools, and is likely to enforce a more just appreciation of their obligations to the state by teachers in preparatory grades. With the

unity of organization and concord of effort thus promised, and probable in the near future, the state has no reason to apprehend any humiliating inferiority in its standard of education, or want of allegiance to the University on the part of its intelligent citizens.

Respectfully submitted,

GEO. H. PAUL,

President of the Board of Regents.

MILWAUKEE, October 1, 1877.

Lewis Medal Fund.

This fund consists of a donation of \$200, made to the University by ex-Gov. James T. Lewis, in the year 1866, for the purpose of distributing medals to such meritorious students as should become entitled thereto, in accordance with the standard of merit to be prescribed by the regents and faculty. As the fund was hardly sufficient to accomplish the object of the donor, it remained at interest, by direction of the regents, until June 17, 1873, when, by resolution of the board, the treasurer was instructed to invest the principal and interest, amounting to \$300, in such interest-bearing securities as should seem to him most desirable. In accordance with his instructions, the treasurer purchased United States bonds, bearing six per cent. gold interest, due in January and July, which he now holds as a special fund, the income therefrom to be used for prizes.

At the annual meeting in June, 1874 (with the consent of ex-Gov. Lewis), the regents resolved "to give a prize of \$20 each year, at such time and under such regulations as the faculty shall determine, to the under-graduate student who shall produce the best written essay; that the name of the prize shall be the 'Lewis Prize,' and that the name of the successful competitor of each year shall be published in the next issued catalogue of the University."

Johnson Endowment Fund.

This fund was created by the liberality of Hon. John A. Johnson, of Madison, Wisconsin.

In a communication addressed to the president of the University, dated February 12, 1876, Mr. Johnson donated the sum of five

thousand dollars (one-half to be paid to the treasurer of the University, January 1, 1877, and one-half, January 1, 1878), as a perpetual fund, "the annual income from which shall be devoted to aiding needy students at the University of Wisconsin, who have, previously to entering the University, attended the common school in the United States at least one year in the aggregate before fifteen years of age, and have attended the University at least one term; or, if they have not attended the common school as aforesaid, they must have attended the University at least one year."

"Until the year 1900, such students only as either read or speak (or both) any of the Scandinavian languages (Norse, Swedish, Danish or Icelandic) reasonably well, shall receive aid from this fund."

"No student shall receive more than fifty dollars in one year, nor shall more than two hundred dollars in the aggregate be given to any one student."

"The president or acting president of the University, together with two of the professors that the president may designate, shall constitute a committee to distribute the aid to the students under the provisions of this bequest."

"All applications for aid must be made to said committee, who are hereby authorized to make such rules in relation thereto as they deem proper."

"No distinction in sex shall be made by the committee in giving aid."

"It should be impressed upon the students who may apply for such aid, the duty of paying back to the fund, as soon as they may be fairly and reasonably able to do so, the full amount they may have received from it. The money thus paid back to be added to and treated as a part of the original fund."

In accordance with the terms of this donation, Mr. Johnson did, on the 28th day of December, 1876, turn over to the University, securities amounting to \$2,500, drawing ten per cent. interest, payable annually, which are now on deposit with the state treasurer.

SCIENCE HALL AND MAGNETIC OBSERVATORY.

Report of special Building Committee in charge of their construction, with other improvements.

To the Honorable Board of Regents of the University of Wisconsin:

Your special building committee to whom has been committed from time to time the charge of constructing Science Hall, with its heating apparatus, the Magnetic Observatory, the general system of water-supply and sewerage, the steam power for machinery and other general improvements, beg leave to finally report.

It has been a duty no less than a necessity to economize and closely look after every detail in the various kinds of work done; to sacrifice ornament for utility; to substantially provide the most ample accommodation, and the greatest number of conveniences with the least possible cost. We have endeavored to do this in every degree consistent with character and durability.

Economy does not always consist in cheapness. Some expenditures may appear to you extravagant, or at least unnecessary; much work has been done which you cannot now judge of in respect to cost or quality, hidden as it is from view, under ground, under water, and otherwise. This we have carefully cared for to ensure its permanency.

The building entrusted to your committee is completed. Contractors have faithfully complied with their several agreements, have been all settled with and paid in full. There are, however, two claims for damages — not claimed as legal, but as equitable — one by D. Stephens, the other by Goodman & Moores, both arising from the accidental falling of walls during a violent storm last September. In view of the circumstances we have been extremely liberal with Mr. Stephens in settling his bill for extra work, and so far as consistent with duty have considered his misfortune. There is no question in regard to facts, and it has been left for the Board to determine whether they will contribute to his loss.

Goodman & Moores present a bill for \$75.00 damages, caused them, which should be paid either by contractor Stephens or the Regents.

SCIENCE HALL.

Two years ago this building was contracted for, and placed under our direction, with authority given to exercise large discretion.

Designed for special uses, it has been an unusual care to perfect it, and to keep within the limits of the sum appropriated for its erection.

We present it completed at a cost of *less than* \$80,000, including the incidentals of advertising, of plans and superintendence and extra work, but not including the additional steam-heating, water and machinery work. Vouchers are receipted and on file for the several items to wit:

David Stephens' contract	\$69,975 00
David Stephens' bill of extras.	4,914 78
Advertising proposals and blanks.....	146 70
H. C. Koch, plans and superintendence.....	8,790 05
Four architects rejected plans, \$75	300 00
Surveying site and photo. elevation	8 00
T. Regan, extra piping laboratories.....	129 95
Vroman & Frank, extra locks.....	27 70
T. A. Nelson, painting and calcimining art gallery.....	94 35
Total cost of the building, exclusive of steam and water	\$79,386 58

STEAM HEATING APPARATUS,

including low pressure boiler. This, while its cost of putting in is greater than many other systems of heating, we feel confident will prove most economical in its use, perfect in its capacity, and conducive to both comfort and health. The bills are as follows:

Goodman & Moores' contract.....	\$10,980 00
Goodman & Moores' bill of extras.. ..	187 28
H. C. Koch, plans and superintendence.....	555 86
	<hr/>
	\$11,673 14
J. W. Eviston, boiler contract.....	5,183 00
J. W. Eviston, bill of extras and cost of testing and running on trial	417 00
H. C. Koch, plans and superintendence.....	273 26
Total cost.....	\$17,546 40

MAGNETIC OBSERVATORY.

This peculiar building — underground entirely, is finished, except clearing away the surplus earth; it has been in use some months and the cost for excavation, masonry and work contracted, is as follows:

To Jas. Livesey.....	\$1,142 57
D. R. Jones, plans and superintendence.....	40 00
Total cost.....	<u>\$1,182 57</u>

WATER WORKS AND DRAINAGE.

The contract on file with Crane Bros. Manufacturing Company to furnish a supply of water from the lake to the dome of "University Hall"(an elevation of 160 feet), to thence distribute it to Ladies' Hall, Science Hall and over the grounds in abundance, will give all the details of material used and work done, which includes not only the necessary steam pumps and boiler of twenty-five horse power, but a fine steam engine for propelling machinery in Science Hall, all now in working order.

This company's contract was.....	\$8,262 00
Their bill for extras.....	584 28
D. R. Jones, superintending it.....	160 00
Total.....	<u>\$8,956 28</u>
A nine-inch sewer pipe laid from Ladies Hall to a point 150 feet into the lake, connecting with drains and sewers from Science Hall, and laid from 6 feet to 19 feet deep, was laid by Gill & Purcell for.....	1,728 80
Making the total cost of all.....	<u>10,684 58</u>
A small barn at tenant house cost.....	<u>\$177 85</u>
There has been paid, as incidental to the other improvements, for excavation of gutters, trenching, grading, etc., not contracted for, but done by D. Stephens, Gill & Purcell, and others, work not of building proper.....	\$1,996 44
Of which the city contributed for earth on street.....	100 00
Making	<u>\$1,896 44</u>

COAL VAULT.

The need of providing storage for a partial supply of coal at or near Science Hall was so evident that your committee have caused a vault to be built in the rear of boiler room and underneath the carriage way. It is finished, and cost as per contract with T. Davenport, \$883.

A contract has been made with T. Regan to change the present dry closets at Ladies' Hall to water closets; to put a bathing-room in order, and to generally distribute water from the main head throughout the building, including the sewerage and soft water cistern connections, for the sum of \$643.80. The work to be done

immediately after commencement, when the building will be comparatively vacant.

SUMMARY OF EXPENDITURES.

Science Hall building.....	\$79,386 53
Steam heating apparatus.....	11,672 14
Low pressure boiler.....	5,873 26
Magnetic observatory.....	1,182 57
Water works.....	8,956 23
Drains and sewers.....	1,728 30
Barn for tenant house.....	177 85
Grading, etc.....	1,896 44
Coal vault, \$883; Ladies' Hall, \$642.90.....	1,525 90
Total.....	<u>\$112,400 23</u>

The above comprises the principal work of permanent improvements to the University property during the past two years, and with the exception of finishing up the grounds, the duties assigned your building committee are ended.

The work entire is respectfully submitted for your inspection and approval, with the request that the committee be now discharged.

N. B. VAN SLYKE,
MATTHEW KEENAN,
THOS. B. CHYNOWETH,
Building Committee.

MADISON, June 19, 1877.

UNIVERSITY COLLEGES.

Report of the President of the University to the Board of Regents.

To the Regents of the University of Wisconsin:

The period covered by this report is the fiscal year closing September 30, 1877. The instruction of the year has proceeded in each of its branches without interruption, and has, we believe, been successful in its leading aims. Some secondary changes have been made in the courses, designed to make each a little more distinctive, and especially to give the scientific students an opportunity for extended practical work. In connection with these changes, we hope also to be able to give students in each course more freedom

of selection and substitution from other courses. While we value highly well-defined and harmonized courses of study, it is also our desire to give a large liberty to individual predilections. Science Hall now affords abundant opportunities for all forms of practical work, and a corresponding freedom of choice is called for to enable us to avail ourselves fully of them.

The number of students during the past year was reduced by higher conditions of admission and their more strict application. This we anticipated. The present year opens with an increase of seventy-two, and we believe also with better conditions of scholarship than have ever before been attained by us. The spirit of the students, as shown by their attention to their work and by their general behaviour, has been every way commendable. This fact has made the past year a very pleasant one to the Faculty.

The proportion of young women to young men in the classes of the university year now opening is a little less than one-fourth. They easily maintain their rank in scholarship with the young men, and constitute an entirely satisfactory portion of our students.

In the entrances of the present fall, an unusual number of high schools are represented, and we have most pleasant evidences of increasingly good work in these intermediate and most valuable portions of our school system. We trust that many of them will soon appear on our accredited list. Very sure we are, that good preparatory work for the University will greatly aid the high schools in their larger and more direct service to the communities in which they are situated. We would appeal to facts on this question. It will be found, we believe, that the most vigorous high schools, as a rule, are those which feel the influence of higher institutions.

The magnetic observatory has been finished during the past year, and very complete observations are now taken in it. It is, in its appliances, a scientific curiosity. Science Hall is also in full occupation, and we are daily more and more gratified by its resources, and the possibilities of growth which it offers. Our present apparatus enables us to commence our work to advantage, while there are constant suggestions of new wants and enlarged instruction. The present material for our mineralogical, geological and zoological museums is sufficient to furnish the basis of a fine collection; yet there is room left for the work of many years.

Ex-governor C. C. Washburn has expressed his purpose to erect

and thoroughly furnish an astronomical observatory during the coming year. This very liberal gift, for which Mr. Washburn has our most hearty thanks, will meet another urgent want; will help to give the University a higher standing among kindred institutions, and, in due time, we trust, an interest in the scientific world. We hope that this liberality, so commendable in itself, will prove contagious, and that many of our citizens will, in a like way, identify themselves with the progress of higher education in the state.

One great want, which we will once more mention without repeating its reasons, is an assembly hall and library. These can be united to advantage in one building, and when secured in good form, will advance the university on its literary side as much as science hall has already advanced it scientifically. The body of our students cannot be reached in discussions and lectures on the broad range of subjects open to us, till we have a room that can contain them all; nor can they otherwise, in their own exercises, exert over each other the influence they ought. In consultation and study, an open, well furnished library is a first condition of earnest inquiry and a quickened literary taste. We are impatient for these most needful things, and would gladly accept the economy in other directions which is necessary for their early attainment.

Our thanks are due to the Board of Visitors that they did not allow their critical function to suffer by disuse. Nor, perhaps, are criticisms to be regarded as less valuable, because they are not altogether palatable. It is not to be expected that we should clearly see or freely acknowledge all our faults. We are in this condition in reference to a portion of the criticisms of the Board. The students had been during the past year unusually attentive to military drill, and cheerful in it. This spirit we have striven personally to encourage, and were hoping that their efforts, in an exercise ordinarily so irksome, would win recognition. In this we were destined to disappointment. Doubtless our drill is not like that of professionals, but it should be remembered that we contend with great difficulties in this enforced military training.

One thing we profoundly regretted in the report of the Board of Visitors, and that was the opinion expressed by them as to the health of the young women. There were some passing appearances, arising from the excessive studiousness of a few not naturally strong, that gave the criticism a color of truth, and were, doubtless, the

grounds of the conviction in the minds of the committee. These reasons, however, were very partial and by no means sufficient for the broad conclusions drawn from them; conclusions arising from exceedingly limited observation, and which did not command the assent of all the committee. We regret these opinions because they tend to open a controversy just closed, and to compel us to travel a second time over ground already painfully trodden, and this with the prospect of no other or better issue than that already reached. To be pushed back into the water, when we have just reached shore, is trying.

The Faculty, most of whom were in the outset opposed to co-education, and who have had years of observation both as to its relation to education and to the health of young women, pronounce earnestly and unanimously in favor of the maintenance of our present method.

Contrary to the opinion of the visitors, the young women do their work with less rather than with greater labor than the young men, and certainly do not fall below them in any respect as scholars. We also believe this labor to be done by them with perfect safety to health, nay, with advantage to health if ordinary prudence is exercised. The young women, whose health was primarily the ground of criticism, have improved in strength, rather than deteriorated, since they have been with us, though they have burdened themselves with extra work which we do not counsel.

We confess to some surprise that so many of the medical profession bring forward for the first time in connection with co-education, a function familiar from the dawn of human life, as if it had the force of a fresh discovery in putting down this form of progress, when, in fact, it has no more to do with co-education than with separate education, can as well be provided for in the one form of instruction as in the other, and bears with ten-fold force against the labors of women as operatives, clerks, teachers, housekeepers, in which callings continuous hard work has been allowed to pass utterly unchallenged.

Though my conviction has been, previous to this report, that the health of the young women as a whole was better than that of the young men, and that there were striking instances of graduation among the young women with robust strength, I am striving to test this opinion by facts, so far with the following results. All ex-

cuses for ill health are given by me. The exact number of students in our collegiate and dependent courses is 35%. Of this number, 93 are young women, a trifle more than one-quarter. During the past eight weeks, the most trying weeks in the year for students, there have been 155 days of absence from ill health on the part of young men, and 18 on the part young women. The young women should have lost, according to their numbers, 54 days, or three times as many as they have actually lost. The students were not aware that any such registration was being made. It may be felt that the young men are less conscientious in pleading ill health than the young women, and this is doubtless true; but I sharply question a young man, and rarely ask any questions of a young woman. I explain the facts in this way. The young men are not accustomed to confinement, and though sun-browned and apparently robust, they do not endure the violent transition as well as women. Study is more congenial to the habits of young women, and the visiting committee are certainly mistaken in supposing that they have to work harder to accomplish their tasks. The reverse is true. In addition to the above bill of ill health against the young men, a corresponding large number of them have been compelled, from the same cause, to leave the University altogether.

A second showing of the registration, which I had not contemplated, but one very interesting, is this: the absences of the young women are almost exclusively in the lower classes. Of the eighteen, two are in the Sub-Freshmen, fourteen in the Freshmen, one in the Sophomore, one in the Junior and none in the Senior. The absences of the young men are evenly distributed, on the other hand, through the entire course. The young women do not then seem to deteriorate with us in health, but quite the opposite. I do not belong to the number of those who set lightly by health. I would not sacrifice any measure of it for scholarship; but it has long seemed to me plain, that a young woman who withdraws herself from society and gives herself judiciously to a college course, is far better circumstanced in reference to health than the great majority of her sex.

I repeat my thanks to the visiting committee for their labors, and have no doubt that even the mistakes which such Boards may inadvertently make, will ultimately be productive of more knowledge and more safety.

ANNUAL EXAMINATIONS.

*Report of the Board of Visitors to the Board of Regents.**To the Hon. the Board of Regents of the University of Wisconsin:*

The undersigned, members of the board of visitors to attend the annual examination of the University classes, respectfully submit the following report:

The University has fortunately outlived, to a great extent, the prejudices and hostility with which it had to contend during the early part of its history. For some years past, it has been rapidly gaining the confidence of the people of the state, as is shown by the more generous policy pursued with reference to it by their representatives, and by the increasing number of students who are availing themselves of the opportunities it offers for enlarged thorough courses of study. From such observations as we have been able to make during the recent examinations, we do not hesitate to affirm that this confidence is well merited. The high reputation of its Faculty, as a corps of accomplished and zealous teachers who keep in full rapport with the latest developments of learning and science, and the largely extended educational facilities, which, by the wise liberality of the state government, have of late been given to it, in the form of natural science collections, apparatus, and increased room for laboratories, work shops and cabinets, make it an institution in which the state may feel a just pride, and which presents great advantages for students who desire to pursue a thorough course of training and study. The more and better it becomes known, the more highly, we feel assured, will it be appreciated. Such at least is the impression we carry away after having attended the examinations and the commencement exercises.

In regard to the examinations, we think it proper, at the outset, to express our sense of the manifest fairness with which they were conducted. There was evidently no pre-arrangement by which the student was enabled to prepare in advance for certain questions, or for examination upon some special chapter or division of a textbook. He was expected to have a general knowledge of the subject under consideration, and to answer, not by any exercise of

verbal memory, reproducing the language of the text-book, but as one who had mastered it, and was, consequently, able to develop clearly, in his own language, the points upon which he was questioned. There were, of course, some instances of failure by students to meet the requirements of such an examination, in part obviously arising from temporary embarrassment, and, in other cases, the consequence, doubtless, of having imperfectly assimilated the instruction they had received.

It was our aim to observe whether the students had been trained to think or to repeat; whether they had been storing up principles or rules; whether they had been mastering systems or particulars, and it gives us pleasure to report the very high character of training indicated by what we saw of the examinations in the several classes. Nothing was done, it would appear, with a view to effect and show, but the purpose kept in view seemed to be to give, as far as was possible within the necessarily narrow limits of the examinations, a fair indication of the acquirements of the students. The character of the training to which the students had been subjected, appeared to be in conformity with the most modern and approved methods. Upon one or two points we may venture a word of criticism. In some cases the pedagogic maxim that "the *maximum* of talk on the part of the pupil, and the *minimum* of talk on the part of the teacher, is the perfection of a recitation," was violated. The active, trained mind of the teacher seemed intolerant of the slower action of the mind of the pupil, and to prevent the gaps in the recitation from becoming too great and too frequent the teacher hastened, as we thought, prematurely, to his aid. In a few instances, also, leading questions were put, or a hesitating pupil was jostled and pushed hither and thither, by a rapid succession of questions, until he suddenly found himself on the right ground, though apparently not having a very clear conception of the route which led to it. Such instances, however, were the exception and not the rule, and due rather to a not unnatural impatience than to design.

In this place, we would suggest whether it would not be practicable to adopt some system of vocal training in the University, by which students would gradually acquire the habit of a clear and distinct utterance, while attaining a certain quality of culture in the tones of the voice. We do not venture this suggestion on ac-

count of any noticeable deficiency, in these respects, on the part of the students of the University as compared with the students of other similar institutions, but because it must be admitted that, as a people, whether owing to some climatic or physical cause, or to transmitted habit, we are inclined to nasal drawling, clipping syllables, and flattening our vowels. These are peculiarities not deserving to be cherished as national characteristics, and which may be modified and gradually eradicated, if those who have the education of the people in their charge can be brought to feel that such a result is of sufficient importance to justify the labor which would be necessary in order to attain it.

The limits of this report, as well as the circumstance that it was impossible for the members of the board of visitors to attend the examinations of all the classes, or all the examinations of any one class, will preclude us from attempting a notice in detail of the several classes. We think it proper, however, to state that nowhere in the University were the results of earnest and critical study more apparent than in the classical department. Clearness of perception and accuracy of expression were noticeable in the examinations of the classes in Latin and Greek. In both, we observed a cheerful earnestness on the part of the students, betokening a thorough interest in the work, and showing that the study of these noble languages has lost none of its old power to quicken the intellect, and enkindle an appreciation of whatever is best in human culture.

The examinations, in the scientific department, gave evidence of careful training, and the method of conducting the examinations merits approval. This was particularly noticeable in the classes in physics, zoölogy, chemistry, applied mechanics, and mathematics. We are aware that the exact character of the studies taught in this department leaves but little room for the student to exercise freedom in answering the questions, and his proficiency or ignorance of the subject, must be quickly apparent. Nevertheless the examinations indicated that the student was thrown wholly on his own resources, and thus gave a good opportunity of determining the proficiency of each.

We have only words of praise to bestow on those who have labored for the erection of Science Hall. It is a building in every way well adapted to the purposes for which it is intended. Sub-

stantial and excellent throughout, we cannot but congratulate the Board of Regents upon having secured the construction of an edifice of such size, and so solidly and thoroughly well built, as it seems to be, at so small an expenditure of money. It must be borne in mind, however, that the building alone cannot accomplish the ends which its erection was designed to promote. In order to attain the results sought for, the professors in each department must have proper apparatus to work with, and this apparatus is so essential to the attainment of the best results that it ought not to be obtained from time to time; it should be procured at once. Some of the apparatus now on hand in the department of physics cannot be made available until additional apparatus is secured. This assertion applies especially in reference to a spectroscope, an instrument of undoubted utility, and each day becoming more useful in the arts and sciences. It cannot, however, be made available for class illustration without the use of a heliostat. Again, in the study of the composition of crystals, a highly important branch, the polariscope is absolutely essential. As there is now but one such instrument in the University, it is, of course, impossible for each student to familiarize himself with the subject under these circumstances. Now a cheap form of polariscope is manufactured for class use, and it would seem advisable that a number of these instruments should be obtained. It is a well understood fact that instruction "imparted through the eye" is a most important method. In nearly all the departments of science a good lantern is essential. The lantern on hand has many good features, its principal defect being the small size of the condensing lens. It is doubtful whether lenses of the proper sizes can be found already manufactured, and, in any event, a superior lens can be obtained only by having it made to order.

The electric apparatus is sadly deficient in many essentials. For example, the electric light cannot be used without a regulator, and the battery power cannot be properly utilized for want of it. The battery in use is by no means what it should be. An institution designed to afford instruction in all the important facts concerning electricity should have one of M. Gramme's magnetic electric machines, which can always be relied upon, and replaces the troublesome, and always dirty, Grove's battery.

There should also be procured a standard galvanometer, a quad-

rant electrometer, and such other instruments as are absolutely requisite to equip a good physical laboratory — such a one as students can work in, and practically familiarize themselves with the essential details in heat, light, electricity and chemistry, which they cannot fully do with the apparatus now on hand.

With the additions above suggested, the department of Physics, in Science Hall, will be as well equipped as that of any other institution in the country, and we must be satisfied with nothing else.

The departments of Chemistry and Zoology require more apparatus and material to equip them thoroughly, and now that the new building is ready to receive them, it would seem to be an appropriate time to supply the deficiencies and make it what it should be.

We were much interested in inspecting the magnetic observatory constructed by the University, but supplied with instruments and superintended by the United States Coast Survey Bureau. As it is the only observatory of the kind in the United States, it cannot but add to the attractions of the University as a scientific center.

It is now several years since the experiment of the co-education of the sexes was begun in the University. In respect to the proficiency shown by the young women in the several classes during the recent examinations, as compared with the young men, our impressions coincide with former boards of visitors. They sustained the test at least as creditably as the young men, and, if there was a difference we are inclined to think it was in favor of the young women. In the main, they excelled in the precision and promptitude with which they responded to questions. We were, however, deeply impressed with the appearance of ill-health which most of them presented. It would not seem probable that, by mere coincidence, so many young women should be congregated together offering this peculiarity. There are a few notable exceptions, but, as a whole, this appearance is unmistakable, and has given rise to considerable comment among the members of the board. There can be nothing about the hygienic condition of the University, in any of its parts, which would give rise to ill health. Every part examined presented an appearance of cleanliness; the food in the Ladies Hall was wholesome and well prepared; the service room clean; the dormitories well lighted and aired, and of sufficient capacity. We are, therefore, compelled to look elsewhere for the cause.

Every physiologist is well aware, that at stated times, nature makes a great demand upon the energies of early womanhood, and that at these times great caution must be exercised lest injury be done — an injury which, it is well known, may prove permanent. In order to keep place in the University classes, where the sexes are educated together, no account is taken of the fact that the woman labors under a double disadvantage, as compared with the man. 1st, in the circumstance that nature compels compliance with its well established laws, and, as above stated, makes demands upon her energies; and, 2d, that to keep her class standing, the girl must devote more energy, and, consequently, work harder, to accomplish her task, making drafts upon her system, which, by the very nature of the case, is already taxed to meet the physiological demands made upon it. It is also well known that overwork in whatever way induced, at the times indicated, will produce deterioration of the system, which generally manifests itself by bloodlessness, followed by a train of evils which it is not necessary here to enumerate. It is this very condition of bloodlessness which is so noticeable in the women of the University at this time; the sallow features, the pearly whiteness of the eye, the lack of color, the want of physical development in the majority, and an absolute expression of anæmia in very many of the women students, all indicate that demands are made upon them which they cannot meet.

Education is greatly to be desired, but it is better that the future matrons of the state should be without a University training than that it should be procured at the fearful expense of ruined health; better that the future mothers of the state should be robust, hearty, healthy women, than that, by over study, they entail upon their descendants the germs of disease. And there is no more certain law than that of heredity. The over-wrought nervous system undermines the general health stealthily, but certainly, and its evil consequences are prolonged in many cases through life.

We are aware that the law organizing the University provides that it shall be open for the education of men and women. It is not therefore necessary that both classes of students be subjected to the same systematic course of training, mental drill being attained in a variety of ways, each leading to adequate results; and the thought impressed itself upon some of the members of the Board that the curriculum could be so ordered that both sexes

might obtain University drill—adjusted in such a manner that each sex should be enabled to secure that form of education best fitted for his or her respective sphere—and that the system of compelling men and women to fare alike might be so modified as to preclude the possibility of causing disease. We are forced to the conviction that there is, at present, a marked disparity between the health of the men and women of the University, and that, as a class, the women present undoubted evidence of physical deterioration. If the Board of Regents, however, consider it expedient to alter the curriculum in any way, we would earnestly recommend that particular attention be paid to the physical well being of the female students.

In the department of Military Science, the visitors observed with regret that there seemed to be a want of interest in the exercises on the part of the students who participated in them. To whatever cause this is due, an attempt should be made to correct the defect. Omitting all consideration of the benefits which might accrue, in the contingency of war, from a more general and hearty participation in the drill exercises, the immediate results of such a course upon the students, as an excellent system of gymnastics, giving vigor to the body, firmness and manliness of bearing and grace of movement, are of very high importance. An earnest effort ought, in our judgment, to be made to arouse a warmer interest in this department than appears to exist at present.

The examination of the Law Class embraced a wide range of topics, and was of a very satisfactory character. It gave evidence that the young men composing it have been under the care of competent instructors, and that, in addition to the oral teaching they have received in the form of lectures, they have profited by a diligent study of the text-books.

In general, the impressions received respecting the discipline which prevails in the University were favorable. The orderly movements of the students, in the several buildings and on the grounds, and their conduct while entering or leaving the class rooms, left little scope for criticism. In the classes, during recitations, there were some instances of a lack of attention, and of a strict observance of the proprieties of the occasion, such as one student communicating with another or abruptly changing his place, which suggested that there was still room for improvement in the

matter of deportment. As a rule, however, the conduct of the students was considerate and courteous, indicating a high regard as well as respect for their instructors.

The Experimental Farm, under the supervision of the agricultural department, presents a variety of soils, surfaces and exposures which admirably adapt it to the purpose to which it is devoted. Many important experiments are conducted upon it, the results of which, if properly utilized, must be of great value. Thus far, however, they have attracted less attention than they merit. This is probably due to the fact that their publication has been mainly confined to an insertion among the documents accompanying the annual report of the Board of Regents of the University, a place where they are not likely to attract the attention of any considerable number of those who are most directly concerned in agriculture. If the results of such experiments could be communicated, in a popular form, from time to time, as they are concluded, to agricultural journals having a large circulation in the state, or to leading newspapers, they would be more effectively brought to the notice of the class of persons most directly interested in them, to the advantage both of the farmers and of the University.

A serious inconvenience is felt at present, from the lack of a hall or chamber, sufficiently large to accommodate the whole body of students when assembled. It is often necessary to address all the students together, and, in institutions where the opportunity exists, such meetings are of frequent occurrence for purposes of instruction, advice, etc. It would, therefore, seem to be eminently proper that the deficiency should be supplied as speedily as possible. The rooms now used for the library are altogether too small, and the books cannot be properly arranged. The books are increasing, from year to year, and the demand for more room will shortly make it necessary to provide a place for them elsewhere than in the narrow quarters now afforded in the main building. We would accordingly suggest that steps be taken to secure the construction at an early day, of a suitable building for the library, and arrange the plan so that a general assembly chamber may form a feature of it.

We would further suggest whether it would not be well to designate the members of the board of visitors as is now done in the case of the visitors of the normal schools, at the beginning of the

academic year, and authorize them to visit the University and attend the recitations of classes, whenever it might suit their individual convenience, in addition to attending the examinations at the close of the year. Doubtless, competent persons, interested in the educational progress of the state, and whose business or inclinations bring them from time to time to the capital, might be found, who would perform such duties without additional expense to the University. Were such a course adopted, it would enable boards of visitors to obtain a much greater familiarity with the methods and condition of the University, its efficiency and its needs, than is practicable under the existing system, and to submit recommendations and criticisms with greater confidence than they are able to feel at present.

In concluding our report, we desire to express our warm appreciation of the many courtesies and attentions which we have received from the board of regents, and from the president and faculty of the University, while engaged in the discharge of our duties.

MOSES LANE,
 GEORGE W. EASTMAN,
 W. H. BORDEN,
 HORACE RUBLEE,
 HENRY JANE,
 D. G. HOOKER,
 WALTER KEMPSTER,
 O. R. SMITH.

MADISON, June 20, 1877.

BOARD OF REGENTS.

STATE SUPERINTENDENT OF PUBLIC INSTRUCTION,
Ex-officio Regent.*Term expires first Monday in February, 1878.*

7th Cong. District... T. D. STEELE..... Sparta.
 5th.....do..... CONRAD KREZ..... Sheboygan.
 2ddo..... J. C. GREGORY. Madison.
 4th.....do..... M. KEENAN Milwaukee.

Term expires first Monday in February, 1879.

State at large..... N. B. VAN SLYKE..... Madison.
 8th Cong. District... J. M. BINGHAM..... Chippewa Falls.

Term expires first Monday in February, 1880.

State at large..... *GEORGE H. PAUL Milwaukee.
 1st Cong. District... J. B. CASSODAY Janesville.
 3d.....do..... W. E. CARTER Platteville.
 6th.....do..... T. B. CHYNOWETH..... Green Bay.

OFFICERS.

GEO. H. PAUL,
PRESIDENT.

JOHN S. DEAN,
SECRETARY.

STATE TREASURER,
Ex-officio TREASURER.

EXECUTIVE COMMITTEE.

N. B. VAN SLYKE. J. C. GREGORY. J. B. CASSODAY.

FARM COMMITTEE.

J. C. GREGORY. M. KEENAN. E. SEARING.

COMMITTEE ON LIBRARY, COURSE OF STUDY AND TEXT BOOKS.

E. SEARING. T. D. STEELE. CONRAD KREZ.

COMMITTEE ON LAW DEPARTMENT.

J. M. BINGHAM. W. E. CARTER. T. B. CHYNOWETH

*Holding over. Term expired February, 1877.

THE NORMAL SCHOOLS.

REPORT OF THE PRESIDENT OF THE BOARD OF REGENTS OF NORMAL SCHOOLS.

HON. EDWARD SEARING,

Superintendent of Public Instruction:

SIR :—I have the honor to submit the Annual Report of the doings of the Board of Regents of Normal Schools, of receipts and expenditures, and of the prospect, progress, and condition of the State Normal Schools for the year ending August 31, 1877.

MEETINGS OF BOARD.

Two meetings of the board have been held during the year, one, called the semi-annual meeting, held February 5th to 8th, inclusive, and the annual meeting held, July 11th to 13th, inclusive.

At these meetings a large amount of routine and special business was transacted, a brief abstract of which is herewith presented:

SEMI-ANNUAL MEETING.

Pursuant to notice, the board met Monday evening, February 5th, in the office of the Superintendent of Public Instruction, and in the absence of the president and vice president, were called to order by the secretary, and Regent Sherman chosen president *pro tem*. Regents Andrews, Chandler and Weeks presented their oaths of office. A quorum being present, the minutes of the last meeting were read and approved. Sundry bills were presented and referred to committees, and the board adjourned to 10 o'clock, Tuesday morning.

TUESDAY, 10 A. M., February 6th, 1877.

Board met and was called to order by the President. Present, Regents Andrews, Evans, Hay, Searing, Sherman, Starr, Weeks.

Sundry bills were presented and referred to the Finance Committee.

Regents Chandler and Cotzhausen appeared and took their seats.

The President made the following appointments to fill vacancies in Committees:

In Committee on Supplies, Regents Andrews and Weeks.

In Committee on Course of Study, Regent Andrews.

In Committee on visitation, Regent Weeks.

In Committee on Senior Class, Regent Sherman.

Regent Weeks presented bill of President Phelps, for expenses of removal from Winona to Whitewater, which was referred to the Finance Committee.

Sundry other bills were presented and referred to the Executive Committee.

Regent Phelps appeared and took his seat.

On motion, the Board adjourned to 5 o'clock P. M.

TUESDAY, February 6th, 5 P. M.

Board met. Present, Regents Andrews, Chandler, Evans, Hay, Phillips, Searing, Sherman, Starr, Weeks.

Regent Sherman presented the following report of the Finance Committee:

The committee on Finance respectfully report that they have examined the following bills and recommend that the same be allowed by the Board:

Bill of President Phelps for expenses of removing from Winona to Whitewater, as per contract	\$165 20
Bill of J. H. Evans, for expenses and per diem in visiting Normal Schools	108 20
Bill of J. H. Evans, for telegraphing, postage, etc.	6 20
Bill of Chas. H. Nye, amount overpaid on settlement of account for winter term, 1876.....	7 00
Bill of W. H. Chandler, expenses and services on Institute Committee.....	88 75
Bill of Edward Searing, telegrams, expenses and services on Committees	81 88
Bill of <i>Wisconsin Journal of Education</i> for advertising.....	37 50

S. S. SHERMAN,

J. PHILLIPS,

S. M. HAY.

Report accepted, the recommendations approved, and bills allowed — all the Regents voting in the affirmative.

Regent Andrews presented the account of ex-Regent Weld for tuition, book-rents, etc., at River Falls Normal School, which was referred to the Finance Committee.

Regent Chandler moved that a committee of three be appointed to examine and report on the advisability of purchasing E. T. Sweet's Mineralogical collection. Carried, and the President appointed Regents Evans, Sherman and Phillips as said committee.

Board adjourned to 10 A. M., Wednesday.

WEDNESDAY, Feb. 7, 1877, 10 A. M.

Board met and was called to order by the President. Present, Regents Andrews, Chandler, Cotzhausen, Evans, Hay, Phillips, Searing, Sherman, Starr, Weeks.

Prof. Chamberlin, Chief State Geologist, being present, responded to an inquiry of the President respecting the prospects of the distribution of geological specimens to the schools of the state.

Regent Evans, for the Committee on Supplies, made the following report:

To the Board of Regents of Normal Schools:

The Committee on Supplies, to whom were referred sundry bills, beg leave to report:

The account of Regent Hay, accompanied by vouchers, from 1 to 54 inclusive, (excepting 21 and 46 referred to Executive Committee) we have examined and audited to the amount of \$1,516.70, being for supplies and repairs at the Oshkosh School.

For supplies at Whitewater we have audited bills as follows:

Regent Weeks, text-books and stationery.....	\$761 10
Regent Weeks, sundry supplies.....	281 04
Regent White,.....do	602 69
D. S. Cook, sundries	193 85
R. O'Conner...do....	271 76

Total.....	\$2,044 00
The account [of Regent Evans for supplies and repairs at Platteville, as shown in vouchers from 1 to 60 inclusive, we have audited and recommended allowance at.....	\$1,294 89

Bills for supplies, repairs, etc., at River Falls, accompanied by vouchers from 1 to 93 (except 26 to 45 inclusive, previously audited), we have examined and recommend that Nos. 10, 46, 56, 58, 67, 79, 80 and 82, amounting to \$332.07, be referred to the executive committee. No. 16, amounting to \$185.00, be returned to Regent

Weld for correction. No. 83, amounting to \$4.50, was withdrawn by Pres. W. D. Parker, and No. 19, amounting to \$17.63, we report to the board for their action. All the other vouchers and bills presented, from 1 to 93, we have audited to the amount of \$887.54.

We therefore recommend that warrants be drawn on the treasurer for the following sums:

S. M. Hay, for supplies and repairs at Oshkosh	\$1,516 70
T. D. Weeks, for supplies and repairs at Whitewater.....	992 14
S. A. White, for supplies and repairs at Whitewater.	602 60
D. S. Cook, for sundry supplies at Whitewater.....	133 85
R. O'Connor, for sundry supplies at Whitewater	271 06
J. H. Evans, for supplies and repairs at Platteville.....	1,294 39
A. H. Weld, for supplies and repairs at River Falls	887 54

Respectfully submitted,

J. H. EVANS,

T. D. WEEKS,

A. D. ANDREWS,

S. M. HAY,

Committee on Supplies.

On Motion, bill No. 19 was allowed by the board, all the regents voting in the affirmative. The report was then adopted and its recommendation respecting the drawing of warrants approved by a unanimous vote.

Regent Chandler read the report of the executive committee, which, on motion, was approved by the board and signed by the secretary.

The board took a recess until 4 P. M., when it again met, with members present as in the morning session.

Regent Starr, for the committee on teachers, made a verbal report.

The president presented the resignation of Prof. Purman, of the Platteville Normal School, which was on motion accepted.

Regent Chandler offered the following resolution, which was unanimously adopted:

Resolved, That in recognition of the long and highly satisfactory service rendered by Miss M. Hill, in connection with the Oshkosh school, her salary be, and the same is hereby established, at \$900, after the current school month.

Regent Hay offered the following resolution, which was unanimously adopted:

Resolved, That the executive committee are hereby authorized to provide for hard wood floors in the main room and halls, for finishing the basement, and for wainscoting in the addition of the normal school building at Oshkosh, in accordance with the memoranda included in the contract with the builders.

Said committee are hereby authorized to audit bills in payment therefor; and there is hereby appropriated out of the income fund a sufficient amount to pay the same.

Board adjourned to 9 A. M., Thursday.

THURSDAY, 9 A. M., Feb. 8, 1877.

Board met. Present, Regents ANDREWS, CHANDLER, COTZHAUSEN, EVANS, HAY, PHILLIPS, SEARING, SHERMAN, STARR, WEEKS.

Regent Sherman presented the following additional report of the Finance Committee, which was accepted and ordered to be placed on record.

The Committee on Finance have also audited the accounts of the following local regents:

Account of S. M. Hay, of money received from his predecessor and from tuition, book rent, etc., showing \$4,866.26, received and paid into the treasury.

Account of J. H. Evans, amount received during fall term 1876, \$1,268.75, and treasurer's receipt for the same.

The account of A. H. Weld has been examined, audited in part by the Committee on Supplies, and in part by the Executive Committee. Receipts from tuition, \$1,785.85. Paid into the treasury, \$1,779.26. The slight discrepancy is explained by the report of the Committee on Supplies.

Respectfully submitted,

S. S. SHERMAN,
JOHN PHILLIPS,
S. M. HAY.

Regent Evans, of the special committee appointed to inspect the mineralogical collection of Mr. Sweet, reported verbally that the Committee considered it unadvisable for the Board to purchase the same.

Bills of Regents' expenses were presented and allowed.

Regent Cotzhausen offered the following resolution, which was

referred to the Committee on Course of Study and Text Books, with instructions to report at the next annual meeting of the Board:

Resolved, That in the opinion of the Board of Normal Regents, the introduction of uniform text-books in the public schools of the state is very desirable, and that suitable legislation towards that end ought to be had at an early day.

On motion Board adjourned *sine die*.

ANNUAL MEETING.

The Board of Regents of Normal Schools met in annual session, in the office of the State Superintendent, Wednesday, July 11th, 1877, at 9 o'clock, A. M. President Starr in the chair.

Present, Regents Andrews, Chandler, Evans, Hay, Searing, Sherman, Starr, Weeks.

The minutes of last meeting read and approved.

Regents Hay, Evans, Andrews and Weeks presented their annual reports, which were referred to the Finance Committee, and also sundry bills which were referred to the Committee on Supplies.

Board then adjourned to 3 o'clock, P. M.

WEDNESDAY, July 11, 1877, 3 P. M.

Board met. Present, Regents Andrews, Chandler, Evans, Hay, Phillips, Searing, Sherman, Starr, Weeks.

Regent Evans, for Committee on Supplies, presented the following report, which was adopted and its recommendation allowed, all the Regents present, as above, voting in the affirmative:

To the Board of Regents of Normal Schools:

The Committee on Supplies report that they have examined and audited bills for supplies and repairs at the several schools as follows:

Bill of Regent Weeks for supplies at Whitewater, accompanying vouchers from 1 to 41 inclusive, amounting in the aggregate to the sum of	\$764 92
Bill of Regent Andrews for supplies at River Falls, accompanying vouchers from 1 to 41 inclusive, amounting to	552 90
Bill of Regent Hay, for supplies at Oshkosh, accompanying vouchers from No. 55 to 90 inclusive (except No. 86 referred to Ex. Committee) amounting to	906 05
Bill of Regent Evans, for supplies at Platteville, with vouchers from 1 to 23 inclusive, amounting to	876 78
Bill of Siefert & Gugler for Lithographic views of Whitewater building	26 00
Bill of Prof. A. H. Weld referred back for correction in February last	1 55

Your committee recommend that warrants be drawn on the treasurer for the amounts named.

Respectfully submitted,

J. H. EVANS,
S. M. HAY,
T. D. WEERS,
A. D. ANDREWS,

Committee on Supplies.

The president made the following report on insurance, which was ordered to be placed on the record:

To the Board of Regents of Normal Schools:

On the 10th day of April, 1877, I effected additional insurance for three years on the River Falls building (including heating apparatus, plumbings and fixed furniture therein), as follows:

\$5,000 Insurance, Co. North America, Philadelphia, premium	\$90 00	
\$5,000 Insurance, Pennsylvania, premium.....	90 00	
		\$180 00
Less discount allowed, 10 per cent		18 00
Cost.....		<u>\$162 00</u>

Bill for which has been audited and paid, and the policies deposited with the State Treasurer.

MADISON, July 11, 1877.

W. STARR.

Regent Chandler read the report of the Committee on Examination of Senior Classes, which was accepted, and the names of the graduates of the several schools contained therein were ordered to be placed on record.

The committee concurred with the faculty in recommending for certificates the following persons, who had completed the elementary course at

WHITEWATER:

Mr. Vesper Morgan, Mr. Wm. H. Cory, Miss Bessie Skavlem, Miss Frances Nichols, Miss Ella M. Moore, Miss Hattie M. Dean, Miss Louise Townsend, Miss Ida Teed.

The committee also concurred with the Faculty in recommending for diplomas the following persons who have completed the full course:

Mr. Rollin Salisbury, Mr. Ferd. B. Hawes, Mr. Alvin J. Blakey,

Miss Mary E. Taylor. Miss Flora A. Raymond, Miss Celia A. Salisbury, Miss Lizzie Wooster, Mrs. Ada Ray Cooke.

The following were recommended for certificates at

OSHKOSH.

Mr. Wm. Leith, Mr. Joseph F. Morin, Mr. Julius Rosholt, Mr. Harvey R. Smith, Mr. Carey Thomas, Mr. Frederick G. Young, Miss Amelia E. Banning, Miss Hannah E. Davis, Miss Alice J. Holcombe, Miss Katharine A. Lyons, Miss Nettie Marble, Miss Ada Peabody.

At this school the Faculty recommended none for graduation from the full course.

The following were recommended for certificates at

PLATTEVILLE:

Mr. James Adams, Mr. Francis Cleary, Mr. Byron B. Fenton, Mr. Samuel I. Hanford, Mr. Wm. T. Jennings, Mr. Clyde R. Showalter, Mr. Homer A. Terrill, Miss Hester J. Baker, Miss Nettie E. Brainerd, Miss Nora Brainerd, Miss Martha Brindley, Miss Sadie F. Burr, Miss Lillie Grindell, Miss Julia Murley, Miss Nellie S. Neeley, Miss Lottie E. Richmond, Miss Myrta Sylvester.

The following who had completed the four years' course were recommended for Diplomas:

Mr. Chas. R. Evans, Mr. John Kelley, Mr. Albert F. Smith, Miss Elsie B. Hawley, Miss Mary F. Neely, Miss Electa M. Potter, Miss Estelle J. Wells.

Regent Chandler read the report of the institute committee, which was laid over for consideration later in the session.

The secretary read the reports of presidents Charlton and Albee, which were on motion accepted and referred to a special committee consisting of Regents Searing, Evans, Sherman.

On motion the board adjourned to 10 o'clock A. M., the next day, with the election of officers made the special order for that time.

THURSDAY, July 12, 1877, 10 A. M.

The board met and was called to order by the President. Present, Regents Andrews, Chandler, Evans, Hay, Phillips, Searing, Sherman, Starr, Weeks.

The board then, by ballot, selected the following officers for the ensuing year:

Regent Starr, President.

Regent Chandler, Vice President.

Regent Searing, Secretary.

A bill of the Journal of Education for advertising was referred to the committee on Finance.

The special committee to which the reports of the presidents had been referred reported as follows:

Your committee have taken into consideration the suggestions of Presidents Charlton and Albee, and respectfully report, recommending:

(1.) That the suggestions of President Charlton respecting Miss Potter, respecting a Supervisor of Practice Teaching, and respecting the enlargement of the course of study in the grammar department, be referred to the committee on Teachers. Also that the suggestion of President Albee respecting a bell be referred to the executive committee; the suggestions respecting Miss Banning, Miss Clark, Miss Armstead, and Miss Webster, be referred to the committee on teachers; the suggestions respecting the elementary course of study be referred to the committee on course of study, and the question of the right of the faculty to make certain rules be referred to the board.

(2.) That the following uniform nomenclature be adopted by the board for the various departments and grades of each school.

Each school shall consist of, I. A Normal Department. II. A Model Department. The latter shall be subdivided into (1) the Primary Grade. (2) the Intermediate Grade. (3) the Grammar Grade. The report gave the following diagram :

NORMAL SCHOOL.	{	I. <i>Normal Department.</i>	{	(1) Primary Grade.
		II. <i>Model Department.</i>		(2) Intermediate Grade.
				(3) Grammar Grade.

(3.) That the calendar for the four schools be arranged as follows :

The Platteville School (Normal Department) shall open the first Wednesday in September and close the last Thursday in June.

The Whitewater School (Normal Department) shall open the last Wednesday in August, and close on the next to the last Thursday

in June, the school year there to consist of two terms of 20 weeks each, with two weeks vacation between.

The Oshkosh School (Normal Department) shall open on the last Wednesday in August, and close on the last Thursday in June.

The River Falls School (Normal Department) shall open on the last Wednesday in August and close on the next to the last Thursday in June.

The examinations for admission at each school shall commence on Tuesday, the day before the opening of the Normal Department.

Respectfully submitted.

E. SEARING,
S. S. SHERMAN,
J. H. EVANS,
Committee.

The report was accepted, its recommendations of references to other committees approved, and the nomenclature and calendar for the schools adopted.

A bill of Mrs. Chamberlin for \$70.00 was presented and unanimously allowed.

Regent Weeks offered the following resolution, which was adopted:

Resolved, That the Committee on Employment of Teachers are hereby authorized and required to make formal contracts with all persons hereafter employed as teachers in the Normal Schools, which shall be signed by the chairman of the Committee and the party employed, and especially express the salary agreed upon, and that the agreement may be terminated at any time by either party giving thirty days' notice to that effect. Said committee may procure printed forms of such contracts, and when executed file the same with the Secretary of the Board.

Regent Weeks presented a bill of H. H. Vincent for \$50.00 for services about the new building at Whitewater, July and August, 1876.

On motion the bill was allowed at \$25.00, all the Regents voting in the affirmative.

Regent Evans read the report of the Committee on Visitation, which on motion was accepted and its recommendations referred to the Executive Committee.

Regent Chandler offered the following resolution which was adopted:

Resolved, That sub-division 3, of section 1, of the regulations relating to Resident Regents, adopted February 3, 1876, is hereby amended to read as follows: 3d. To purchase all text and reference books, by and with the advice of the Faculty, to an amount not exceeding the income of the library derived from book rents and sales of books, after paying salary of librarian.

The report of President Phelps was read by the Secretary. So much of the report as related to course of study was referred to the Committee on Course of Study; so much as related to teachers, to Committee on Teachers; and so much as related to changes in building, to Executive Committee, with authority to act.

The Board adjourned to 3 o'clock, P. M.

THURSDAY, *July 12*, 1877, 3 P. M.

Board met. Present, Regents Andrews, Chandler, Evans, Hay, Searing, Sherman, Starr and Weeks.

The secretary read the report of President Parker. So much of said report as related to changes in buildings was referred to the executive committee; and so much as related to teachers, to committee on teachers.

The report of the institute committee was called up, and, on motion, accepted, and the following resolutions accompanying it adopted by the affirmative vote of all the regents present:

Resolved, That the sum of five thousand dollars be, and the same is hereby appropriated out of the Normal School Income Fund, or so much thereof as may be necessary for that purpose, to defray the expenses of institutes for the ensuing year, accounts for which may be audited, allowed and paid by order of the committee on institutes, including expenses of supervision which shall be allowed at the same rates heretofore allowed by the board.

Resolved, That the sum of \$700.02 be, and the same is hereby appropriated out of the Normal School Fund income, to provide for deficiency of appropriations to meet expenditures of institute committee for years 1875-6 and 1876-7, \$500 of which shall be chargeable to fund of former year, and \$200.02 to fund of latter year.

Regent Sherman read the report of the committee on teachers.

Regent Hay offered the following resolution, which was unanimously adopted:

Resolved, That the salary of Miss Emily Webster be fixed at seven hundred dollars for the ensuing year.

Regent Chandler offered the following resolution, which was adopted — Regents Andrews, Chandler, Evans, Hay, Searing, Sherman and Starr voting in the affirmative; none in the negative:

Resolved, That in recognition of the long and faithful service of Miss Mary Brayman, and of her ability as a primary teacher, her salary is hereby increased to eight hundred dollars per annum.

The president announced the following standing committees:

Finance — Sherman, Hay, Phillips.

Teachers — President, Searing, Sherman.

Study — Searing, Andrews, Cotzhausen.

Supplies — President, Evans, Weeks, Hay, Andrews.

Executive Committee — President, Chandler, Hay.

Institutes — Searing, Chandler, Ludington.

Visitation — Evans, Weeks, Hay, Andrews.

Senior Class — Sherman, Chandler, Searing.

Board adjourned to meet at 7½ o'clock, in executive session.

THURSDAY, July 12, 1877, 7½ P. M.

Board met. Regents present as before. After informal discussion in Executive Session, Segent SHERMAN read report of Finance Committee, as follows:

The Committee on Finance make the following report.

Balance in Treasury June 30, 1887.....	\$12,585 00
Estimated income from fund.....	60,000 00
Accrued income from scaools, not included above—	
Whitewater.....	\$1,638 44
Platteville.....	2,371 48
Oshkosh.....	2,966 00
River Falls.....	1,233 36
	8,209 28
Estimated income from tuition and library for ensuing year....	15,000 00
Total revenue for the year.....	\$95,744 28

CONTRA.

Bills audited by Committee on Supplies at present meeting.....	\$2,220 60
Bills audited by Executive Committee at present meeting.....	1,497 72

Due on contract and to furnish Oshkosh addition.	8,000 00	.....
Estimated cost of schools.....	64,000 00	.....
Appropriation for Institutes.....	5,000 00	.....
Bills audited by Board present meeting.....	400 00	.....
Total amount of expenditures to July 1, 1878, estimated.....		<u>76,118 32</u>
		<u>\$19,625 96</u>

S. S. SHERMAN,
S. M. HAY,
J. PHILLIPS.

The accounts of the local regents of the several schools have been examined, compared with the vouchers and found correct.

Account of Regent Weeks, Whitewater School —		
Receipts from books.....		\$988 31
Receipts from tuition		2,003 00
Total receipts for the year.....		<u>\$2,991 31</u>
Account of Regent Hay, Oshkosh School —		
Receipts from books.....		\$1,240 90
Receipts from tuition		4,214 75
Ashes and grass sold.....		16 75
Total receipts for the year		<u>\$5,472 40</u>
Account of Regent Andrews, River Falls School —		
Receipts from books		\$601 91
Receipts from tuition		5,292 70
Sale of ashes and correction of former account.....		6 55
Total receipts for the year.....		<u>\$3,901 16</u>
Account of Regent Evans, Platteville School —		
Receipts from books		\$753 63
Receipts from tuition.....		2,861 10
Sale of ashes, etc.....		25 40
Total receipts for the year.....		<u>\$3,640 13</u>

The state treasurer's receipts for the above several accounts have been shown the committee.

The income from the four schools for the last school year as shown above is \$15,005.00, from which should be deducted \$486.70, amount carried over from the Oshkosh school for the previous year and included in the above, giving as the net income for the year, \$14,518.30

The following bill is recommended for allowance:

Wisconsin Journal of Education for advertising Normal Schools, \$37.50.

Respectfully submitted,

S. S. SHERMAN,
S. M. HAY.

The report was accepted and approved.

On motion the following bills were unanimously allowed.

E. B. Bolens.....	\$5 00
Journal of Education, advertising	37 50
E. Searing, telegraphing, expenses on committee, etc.....	24 75
W. Starr, expenses as regent.....	29 90
J. H. Evans, expenses as regent.....	26 00
T. D. Weeks, expenses as regent.....	12 35
S. S. Sherman, expenses as regent.....	17 35
A. D. Andrews, expenses as regent.....	42 10
W. H. Chandler, expenses on committee, etc.....	82 50
S. M. Hay, expenses as regent	20 70
J. Phillips, expenses as regent	16 40

Regent Weeks offered the following resolution, which was unanimously adopted:

Resolved, That the salary of Miss Delaney at the Whitewater school be fixed at \$750.

Board adjourned to 8:30 A. M. next day.

FRIDAY, July 13, 1877, 8:30 A. M.

Board met. Vice-President Chandler in the chair. Present, regents Chandler, Andrews, Weeks, Sherman, Hay, Evans, Searing.

Regent Evans presented bills of the normal school presidents, for expenses incurred in attending the meeting, which were unanimously allowed.

Regent Chandler read the report of the executive committee. Report was approved by the board and signed by the secretary.

Regent Searing read the report of the special committee on uniform text-books, appointed at the semi-annual meeting of the board. Report was, on motion, received and ordered to be placed on file.

Regent Sherman presented the following resolution, which was unanimously adopted:

Resolved, That the matter of seating the gymnasium of the school at Oshkosh be referred to the executive committee with power to act.

The board then adjourned *sine die*.

MEMBERS AND OFFICERS.

The present members of the board and its officers are:

Gov. HARRISON LUDINGTON, ex-officio,	-	-	-	Madison.
EDWARD SEARING, Supt. Pub. Inst., ex-officio,	-	-	-	Madison.

Term ending February 1, 1878.

WILLIAM STARR,	-	-	-	-	-	-	-	-	Ripon.
J. H. EVANS,	-	-	-	-	-	-	-	-	Platteville.
F. W. COTZHAUSEN,	-	-	-	-	-	-	-	-	Milwaukee.

Term ending February 1, 1879.

S. S. SHERMAN,	-	-	-	-	-	-	-	-	Milwaukee.
JOHN PHILLIPS,	-	-	-	-	-	-	-	-	Stevens Point.
S. M. HAY,	-	-	-	-	-	-	-	-	Oshkosh.

Term ending February 1, 1880.

W. H. CHANDLER,	-	-	-	-	-	-	-	-	Sun Prairie.
A. D. ANDREWS,	-	-	-	-	-	-	-	-	River Falls.
T. D. WEEKS,	-	-	-	-	-	-	-	-	Whitewater.

OFFICERS OF THE BOARD.

PRESIDENT, WILLIAM STARR,	-	-	-	-	-	-	-	-	Ripon.
VICE-PRESIDENT, W. H. CHANDLER,	-	-	-	-	-	-	-	-	Sun Prairie.
SECRETARY, EDWARD SEARING	-	-	-	-	-	-	-	-	Madison.
TREASURER, ex-officio, FERDINAND KUEHN,	-	-	-	-	-	-	-	-	Madison.

The following regulations govern the admission to the normal schools:

REGULATIONS FOR ADMISSION.

[Adopted by the Board of Regents.]

1. Each assembly district in the state shall be entitled to eight representatives in the normal school, and in case vacancies exist in the representatives to which any assembly district is entitled, such vacancies may be filled by the president and secretary of the board of regents.

2. Candidates for admission shall be nominated by the superintendent of the county (or if the county superintendent has not jurisdiction, then the nomination shall be made by the city superintendent of the city) in which such candidates may reside, and they shall be at least sixteen years of age, of sound bodily health, and good moral character. Each person so nominated shall receive a certificate, setting forth his name, age, health and character, and a duplicate of such certificate shall be immediately sent by mail, by the superintendent, to the secretary of the board.

3. Upon the presentation of such certificate to the president of a normal school, the candidate shall be examined, under the direction of said president, in branches required by law for a third grade certificate, except History and Theory and Practice of Teaching, and if found qualified to enter the normal school in respect to learning, he may be admitted, after furnishing such evidence as the

president may require, of good health and good moral character, and after subscribing to the following declaration:

I, ———, do hereby declare that my purpose in entering this state normal school is to fit myself for the profession of teaching, and that it is my intention to engage in teaching in the public schools in this state.

4. No person shall be entitled to a diploma who has not been a member of the school in which such diploma is granted, at least one year, nor who is less than nineteen years of age; but a certificate of attendance may be granted by the president of a normal school to any person who shall have been a member of such school for one term, provided that, in his judgment, such certificate is deserved.

The following tables show the condition of funds and income on the 30th day of September, and the increase of fund during the past year, which is not large (\$21,764), owing to the diminished sales of land (\$10,137.71) and the large amount still lying in the state treasury uninvested, (45,066.84).

If the policy of the state is to be, as has been the practice, to keep the principal of trust funds in the state treasury, uninvested, to be used in emergencies where general revenues fail to meet the appropriations and current expenses of the state, and thus to bridge over deficiencies and maintain the credit of the state unimpaired until incoming taxes relieve the deficit, and replace the borrowed trust funds; and if this process is to be repeated year by year; then it seems but common justice that the state should pay interest to the fund or funds so used; especially as in the case of educational funds, where the income only is to be used, and where the state is the sole trustee to make the investment.

NORMAL SCHOOL FUND.

This fund consists of the proceeds of the sales of land set apart for the support of Normal Schools, by the provisions of chapter 537 of the general laws of 1865.

RECEIPTS.		
Sales of land.....	\$10,137 71	.....
Dues on certificates.....	1,783 00	.....
Loans	12,472 00	.....
Penalties.....	4 51	.....
Loan to Iowa county.....	10,000 00	.....
Loan to city of Madison.....	2,500 00	.....
Town bonds.....	2,200 00	.....
	\$49,097 23	
DISBURSEMENTS.		
Loans to school districts.....		\$11,850 00
Loan to Wood county.....		80,000 00
Loan to Racine county.....		7,500 00
Loan to town of Pine Valley, Clark county.....		3,000 00
Refunded for overpayment.....		72 67
	\$39,097 23	\$53,422 67
Balance September 30, 1876.....	58,382 29	.....
Balance September 30, 1877.....		45,056 84
	\$97,479 51	\$97,479 51

The amount of productive Normal School Fund on the 30th day of September, 1876, and 1877, respectively, was as follows:

	1876.	1877.
Amount due on certificate of sales.....	\$41,945 29	\$39,481 29
Amount due on loans.....	114,272 05	112 750 05
Certificates of indebtedness.....	515,700 00	515,700 00
United States bonds.....	43 000 00	43,000 00
Milwaukee city bonds.....	160,000 00	160,000 00
Town bonds.....	16,500 00	14,300 00
City of Madison loan.....	7,500 00	5,000 00
Iowa county loan.....	65,000 00	55,000 00
Racine county loan.....		7,500 00
Town of Pine Valley loan.....		3,000 00
Wood county loan.....		30,000 00
	\$963,917 84	\$985,681 84

Showing an increase of \$21,764.

NORMAL SCHOOL FUND INCOME.

The following statement exhibits the various sources from which this income was received during the past year, and the disbursements therefrom:

RECEIPTS.		
Interest.....	\$11,163 76	
Interest on certificates of indebtedness.....	86,099 00	
Interest on United States bonds.....	2,736 41	
Interest on Milwaukee bonds.....	11,200 00	
Interest on town bonds.....	1,155 00	
Interest on loan to city of Madison.....	350 00	
Interest on loan to Iowa county.....	4,550 00	
Tuition fees, Platteville Normal School.....	3,673 63	
Tuition fees, Whitewater Normal School.....	2,991 81	
Tuition fees, Oshkosh Normal School.....	7,812 62	
Tuition fees, River Falls Normal School.....	2,994 43	
J. B. Doe, sale of boiler.....	350 00	
	\$85,076 16	
DISBURSEMENTS.		
Expenses of regents.....		\$547 91
Platteville Normal School.....		17,114 98
Whitewater Normal School.....		21,133 49
Oshkosh Normal School.....		21,483 56
River Falls Normal School.....		16,001 83
Institute expenses.....		4,315 41
Expenses.....		2,845 19
Enlargement of Whitewater N. S. building.....		167 24
Enlargement of Oshkosh N. S. building.....		14,484 50
Refunded for overpayment.....		81 16
	\$85,076 16	\$98,075 26
Balance September 30, 1876.....	22,451 58	
Balance September 30, 1877.....		9,452 48
	\$107,527 74	\$107,527 74

The foregoing statement of receipts and expenditures pertaining to the income fund, are for the state fiscal year ending September 30th.

For a classified statement of expenditures from the same fund for the year covered by this report, ending August 31st, you are referred to the following table, compiled from the books of the secretary of the Board:

STATEMENT OF EXPENDITURES.

Teachers and janitor — Platteville	\$12,920 00
Teachers and janitor — Whitewater.....	14,260 00
Teachers and janitor — Oshkosh.... ?.....	14,625 00
Teachers and janitor — River Falls.....	11,404 00
Platteville, not including above.....	2,691 60
Whitewater, not including above.....	6,045 44
Oshkosh, not including above	4,072 54
River Falls, not including above.....	4,016 83
Enlargement — Oshkosh.....	15,757 03
Repairs and alterations — Whitewater.....	599 51
Furniture — Whitewater.....	650 75
Furnaces — Whitewater	844 50
Insurance.....	562 00
Salary of secretary.....	800 00
Institutes.....	6,249 32
Regents' expenses.....	2,143 24
Miscellaneous.....	913 52
Total.....	<u>\$98,055 28</u>

INSTITUTES.

The institute work has been vigorously and efficiently carried on during the year, upon the same general plan as heretofore, with such modifications as experience and careful thought have suggested.

For a more full and detailed statement of the work and results, your attention is invited to the report of the Committee on Institutes, accompanying this report.

ACCOMPANYING REPORTS.

Your attention is specially invited to the reports herewith submitted, from Presidents Charlton, Phelps, Albee and Parker, for such statistical and other information as pertains more directly to the individual organization of each school.

These reports, each enwrought with the individuality of the president, become efficient aids in the working practice of our system.

A thorough system of visiting the schools by committees has been inaugurated, and perfected from year to year. These committees — the committee composed of local regents, the committee on teachers, and the committee on senior classes, by their examinations and reports, place the board in vital connection with the every-day work of the schools, and furnish the information necessary for a comparison of work and methods, and without which the

administration of their affairs by the board would be more theoretical than practical, unless they were willing to receive and accept such information from outside sources, or were willing to abdicate and delegate their management to the local regent and the faculty, or to either, as circumstances might lead the current of direction.

ADDITIONS.

The additions to the Whitewater and Oshkosh buildings have been completed and are now in use, adding greatly to the convenience and efficiency of the schools, and it is hoped that it will now be possible, without crippling the four schools in operation, to gradually accumulate funds enough to establish another school.

Experience has now demonstrated about how much room can be advantageously used in one school under the same faculty, and this experience will be of use in planning buildings hereafter.

CONCLUSION.

The singleness and unity of purpose which has animated and characterized the Board for the twelve years during which it has been my pleasant privilege to be connected with its labor of organizing the Normal Schools of our state, still continues; and it is to be hoped that whatever changes time may bring in its political wirligig to change its constituent organization, will only result in increased harmony and efficiency.

Respectfully submitted,

WILLIAM STARR,

President of the Board of Regents of Normal Schools.

REPORTS OF PRESIDENTS OF NORMAL SCHOOLS.

PLATTEVILLE NORMAL SCHOOL.

To the Honorable WILLIAM STARR,

President of the Board of Regents of Normal Schools:

DEAR SIR:—The eleventh scholastic year of the State Normal School at Platteville opened on the 5th day of September, 1876, and closed on the 28th day of June, 1877; with the usual vacations

at the holidays and at the close of the winter term. Though unmarked by any striking events, it was a year of steady progress, of faithful work and of satisfactory results. The attendance was good in all departments, being larger in the Normal Department than ever before. In view of the results accomplished I regard it as the most prosperous year of my connection with the school.

In this brief report, I shall neither attempt to discuss general principles of education nor to present any theories of Normal School work. I shall simply content myself with giving such particulars of the year's progress as seem to me worthy of record.

The vacancy in the department of English Language and Literature, occasioned by the resignation of Prof. D. Gray Purman, not having been filled at the opening of the year, Regent Evans made temporary arrangements, which continued through the fall term. At the beginning of the winter term, Miss Helen Hoadley was employed for the position mentioned, and Miss Georgia A. Speer was also employed as teacher of Reading.

The faculty for the year was as follows:

EDWIN A. CHARLTON, A. M., PRESIDENT,
Mental and Moral Science.

DUNCAN MCGREGOR, A. M.,
Theory and Practice of Teaching, and Conductor of Institutes.

GEORGE BECK, M. S.,
Natural Sciences.

D. E. GARDNER,
Mathematics and Vocal Music.

HELEN HOADLEY, A. M.,
English Language and Literature: Winter and Spring Terms.

EMELINE CURTIS,
Geography and History.

GEORGIA A. SPEER,
Reading and Arithmetic; Winter and Spring Terms.

CHARLES H. NYE,
Principal of Grammar Department.

JENNIE S. COOKE,
Assistant in Grammar Department.

ANNA POTTER,
Teacher and Critic in Intermediate Department.

MARY BRAYMAN,
Teacher and Critic in Primary Department.

MRS. HELEN E. CHARLTON,
English Language and Literature; Fall Term.

SUMMARY OF ATTENDANCE.

NORMAL DEPARTMENT.

Gentlemen,	-	-	-	-	-	-	-	-	-	99	
Ladies,	-	-	-	-	-	-	-	-	-	125	
Total,	-	-	-	-	-	-	-	-	-	—	224

Classified as follows:

Fourth Year Class,	-	-	-	-	-	-	-	-	-	7	
Third Year Class,	-	-	-	-	-	-	-	-	-	16	
Second Year Class,	-	-	-	-	-	-	-	-	-	51	
First Year Class,	-	-	-	-	-	-	-	-	-	150	
Total, as above,	-	-	-	-	-	-	-	-	-	—	224

GRAMMAR DEPARTMENT.

Gentlemen,	-	-	-	-	-	-	-	-	-	89	
Ladies,	-	-	-	-	-	-	-	-	-	76	
Total,	-	-	-	-	-	-	-	-	-	—	165

INTERMEDIATE DEPARTMENT.

Boys,	-	-	-	-	-	-	-	-	-	24	
Girls,	-	-	-	-	-	-	-	-	-	35	
Total,	-	-	-	-	-	-	-	-	-	—	59

PRIMARY DEPARTMENT.

Boys,	-	-	-	-	-	-	-	-	-	17	
Girls,	-	-	-	-	-	-	-	-	-	28	
Total,	-	-	-	-	-	-	-	-	-	—	45

Deduct twice counted,	-	-	-	-	-	-	-	-	-	44	
Total enrollment for the year,	-	-	-	-	-	-	-	-	-		449

ANNIVERSARY EXERCISES.

June 25-28, 1877.

Examinations — Monday, Tuesday and Wednesday, A. M.

Closing exercises primary department — Wednesday, 10½ o'clock
A. M.

Exercises of elementary class — Wednesday, 2 o'clock P. M.

Ninth Annual Commencement, Thursday, 10 o'clock A. M.

Class exercises — Thursday, 3 o'clock P. M.

Meeting of the Alumni Association and Reunion — Thursday evening.

GRADUATING CLASS.

Charles R. Evans,	-	-	Platteville,	-	Grant.
John Kelly,	-	-	Richwood,	-	Dodge.
Albert F. Smith,	-	-	Montfort,	-	Grant.
Elsie B. Hawley,	-	-	Warren, Ill.		
Mary F. Neely,	-	-	Platteville,	-	Grant.
Electa M. Potter,	-	-	Platteville,	-	Grant.
Estelle J. Wells,	-	-	Warren, Ill.		

ELEMENTARY CLASS.

James Adams,	-	-	Viroqua,	-	Vernon.
Francis Cleary,	-	-	Platteville,	-	Grant.
Byron B. Fenton,	-	-	Shullsburg,	-	La Fayette.
Samuel I. Hanford,	-	-	Platteville,	-	Grant.
William T. Jennings,	-	-	Hazel Green,	-	Grant.
Clyde R. Showalter,	-	-	Bloomington,		Grant.
Homer A. Terrill,	-	-	Platteville,	-	Grant.
Hester J. Baker,	-	-	Newton,	-	Vernon.
Nettie Brainerd,	-	-	Boscobel,	-	Grant.
Nora Brainerd,	-	-	Boscobel,	-	Grant.
Martha Brindley,	-	-	Boscobel,	-	Grant.
Sadie F. Burr,	-	-	Lancaster,	-	Grant.
Lillie J. Grindell,	-	-	Platteville,	-	Grant.
Julia Murley,	-	-	Boscobel,	-	Grant.
Nellie S. Neely,	-	-	Platteville,	-	Grant.
Lottie E. Richmond,	-	-	Monticello,	-	Green.
Myrtie Sylvester,	-	-	Castle Rock,	-	Grant.

GRADUATES.

There are now one hundred and two graduates in the full course. Since the establishment of the elementary, or two years' course, the elementary certificate has been awarded to forty-one students, viz.:

In 1875.....	8
In 1876.....	16
In 1877.....	17
Total.....	<u>41</u>

Of these, nine have already graduated in the advanced course, and others are still pursuing the studies of the course.

The following tables give the occupation of graduates during the past year:

OCCUPATION.	Gentlemen.	Ladies.	Total.
Teaching in Wisconsin	16	24	40
Teaching in other states	4	7	11
County superintendents, Wisconsin	2	1	3
University students	3	1	4
Medical students	2	.....	2
Lawyers and law students	8	.....	8
Clergyman	1	.....	1
Mercantile business	5	.....	5
Farming	4	.....	4
Clerk of court	1	.....	1
U. S. mail agent	1	.....	1
Editor	1	.....	1
Married and left the profession. ....	.....	9	9
Temporarily unemployed	1	3	4
Deceased	1	.....	1
Class of 1877*	3	4	7
Total	53	49	102

ELEMENTARY CLASSES.

OCCUPATION.	Gentlemen.	Ladies.	Total.
Subsequently graduated in advanced course	4	5	9
Students in advanced course	5	4	9
Teaching in Wisconsin	3	2	5
Left the state .....	.....	1	1
Class of 1877 †	7	10	17
Total	19	22	41

VISITATION.

The Board of Visitors appointed by the Superintendent of Public Instruction, consisting of Hon. Paul A. Orton, of Darlington, Rev. Charles H. Richards, of Madison, and Sup't D. H. Flett, of Kenosha, visited the school on two different occasions. It was our aim to furnish them the best possible facilities for inspecting the condition and work of the school.

* All teaching, December 1, 1877.

† Nine teaching; eight in advanced course, December 1, 1877.

On the occasion of their last visit, Mr. Richards delivered an eloquent instructive lecture on "Art and its Masterpieces," which was listened to with great interest by students and citizens.

ORGANIZATION FOR 1877-8.

The Faculty for the ensuing year, the courses of study and the calendar, are given below.

FACULTY.

EDWIN A. CHARLTON, A. M., PRESIDENT,
Mental and Moral Science.

DUNCAN MCGREGOR, A. M.,
Theory and Practice of Teaching, and Conductor of Institutes.

GEORGE BECK, M. S.,
Natural Sciences.

D. E. GARDNER,
Mathematics and Vocal Music.

ALBERT J. VOLLAND, A. B.,
Latin and Greek.

EMILY M. B. FELT,
English Language and Literature.

EMELINE CURTIS,
Geography and History.

TRAINING DEPARTMENT.

CHARLES H. NYE,
Director; and Principal of Grammar Grade.

ELLA C. ASPINWALL,
JENNIE S. COOKE,
Assistants in Grammar Grade.

ANNA POTTER,
Teacher and Critic in Intermediate Grade.

MARY BRAYMAN,
Teacher and Critic in Primary Grade.

COURSE OF STUDY.

ELEMENTARY COURSE.						ADVANCED COURSE.					
FIRST YEAR.			SECOND YEAR.			THIRD YEAR.			FOURTH YEAR.		
FALL TERM, 16 weeks.	WINTER TERM, 12 weeks.	SPRING TERM, 12 weeks.	FALL TERM, 16 weeks.	WINTER TERM, 12 weeks.	SPRING TERM, 12 weeks.	FALL TERM, 16 weeks.	WINTER TERM, 12 weeks.	SPRING TERM, 12 weeks.	FALL TERM, 16 weeks.	WINTER TERM, 12 weeks.	SPRING TERM, 12 weeks.
Practical Arith. 6 w., El. Algebra 6 weeks.	Elementary Algebra.	Elementary Geometry.	Higher Arithmetic.	Reviews.		Higher Algebra.	Higher Algebra.	Geometry.		Trigonometry.	
Grammar.	Composition and Rhetoric.	Rhetoric and Criticism.	Latin.	Latin.		Latin.	Latin.	Latin.	Latin.	Latin.	Latin.
		Physiology.	Elementary Physics.	Botany.		Natural Philosophy.	Natural Philosophy.	Zoology.	Chemistry.	Astronomy.	Geology.
Geography.	U. S. History.	Civil Government.	Word Analysis and Reading.	Physical Geography.		General History.	Political Economy.	Criticism.	English Literature.		School Law.
Oriscopey and Reading.	Drawing.	School Economy.		Drawing.					Mental Philosophy.	Moral Philosophy.	History of Education.
Vocal Music, Penmanship, Theory and Practice of Teaching.						Methods of Teaching and Practice in Model School.					

CALENDAR, 1877-78.

Fall term, 16 weeks. From Tuesday, September 4, to Friday, December 21, 1877. Vacation two weeks.

Winter term, 12 weeks. From Tuesday, January 8, to Friday, March 29, 1878. Vacation one week.

Spring term, 12 weeks. From Tuesday, April 9, to Thursday, June 27, 1878.

Graduating exercises, Thursday, June 27, 1878.

Meeting of Alumni Association, Thursday evening, June 27.

CONCLUSION.

Whatever success has attended the work of the school, during the past year, is largely due to the faithful labors of my associates, to all of whom I would return my grateful acknowledgements.

The Board of Regents have provided liberally for the wants of the school, and it has been my constant aim to make the best possible use of all the means and resources placed at my disposal, to subserve the main object of the school; that of thoroughly equipping teachers for their work.

In conclusion, I beg leave to express to you and your associates in the Board of Regents, my heartfelt appreciation of your unvarying kindness and courtesy.

With an earnest purpose to devote myself to the duties of my position with whatever of energy and ability I possess.

I remain, very respectfully, your obedient servant,

EDWIN A. CHARLTON.

 WHITEWATER NORMAL SCHOOL.

HON. WILLIAM STARR,

President of Board of Regents Normal Schools:

SIR: The undersigned respectfully submits the annual report of the State Normal School at Whitewater, for the year ending June 30th, 1877.

ATTENDANCE.

The details of the attendance during the past year having already

been made public in the annual catalogue, their repetition here is not deemed necessary. The aggregates for the several departments are herewith submitted:

NORMAL DEPARTMENT.

Senior class	9	....
Junior class	15	....
Second year class.....	63	....
First year class.....	230	....
Preparatory class	26	....
Total.....	<hr/>	343

TRAINING DEPARTMENT.

Intermediate class	38	....
Primary class.....	30	....
Total	<hr/>	68

GRAMMAR DEPARTMENT

Total.....	474	....
Total last year.....	385	....
Increase this year	<hr/>	89
	<hr/>	

IRREGULARITY OF ATTENDANCE.

The most discouraging fact in connection with the attendance during the past year, is its irregularity. Within four or five weeks from the opening of the fall term, the "withdrawals" began. This process of disintegration continued with greater or less rapidity until the middle of November, by which time about sixty of those admitted had left, most of them to teach in the winter schools. During the same period, candidates for admission were constantly appearing, making entrance examinations of almost daily occurrence, while the entire time and attention of the teachers were demanded in the work of the class-room. In consequence of these constant outgoings and incomings, the classification becomes unstable and confused, the *morale* of the school is injured, and the quality of the teaching is seriously impaired. Such irregularities are positive evils with no compensating advantages. In the paramount interests of public education, which are directly affected by the *status* of these Teachers' Seminaries, they should be promptly and thoroughly remedied.

A REASONABLE EXPECTATION AND A JUST DEMAND.

Much is reasonably and justly expected of our state normal

schools. It is demanded of them that they should become a positive power in the remedy of evils, and the reformation of abuses now existing in the public school system, of which they are appropriately considered to be the head. Hence they should be models of organization, management and thorough instruction. They should maintain a high standard of efficiency in order that, by the power of their example, they may elevate the standard of every other school in the state. The habits and character of every student are profoundly affected, either by the perfection or imperfection of the institution in which he is trained and prepared for his future work as a teacher of youth. Irregularity of attendance and a lack of close classification are admitted to be among the most glaring defects of our common schools, limiting, and in many cases, almost destroying their usefulness. Teachers' seminaries should not perpetuate these evils by giving to them the sanction of their own example. Supported as they are by the state, like our national military, and naval schools, they are in a position to establish and maintain all the conditions of the highest success in educational organization, administration, and training. The moral power of such examples as they might afford, would be simply incalculable. Every school, even in the remotest rural district, would soon feel the influence of such an example. A public institution which attempts to adapt itself to the personal convenience of three or four hundred different individuals, and sets aside those sound principles that control all successful administration, can itself be a success only in appearance, while, in reality, it is sowing the seeds of disorder and disintegration.

A SERIOUS EVIL.

Besides the embarrassing—demoralizing—effect of these irregularities upon the school itself, there is another evil scarcely less deplorable. It is the influence of these short time students upon the reputation of the institution. Many go out after two, three or four months' attendance at the normal school, professing to represent its teachings and methods. The representations of this class are rarely scanned with any care by the average school district officer, who does not discriminate between such teachers and those who have graduated from a full course. The result is that failures are not uncommon and are charged to the account of the institu-

tion which these crude specimens of the pedagogic art may have happened to attend. It has been well said, that one such case may result in more injury to the normal school than two graduates can counteract. It is within the personal knowledge of the undersigned that such injurious consequences are not uncommon and that much of the prejudice against these schools has its origin in this cause. Hence, regularity and stability in attendance should be aimed at, and, so far as possible, enforced. No candidate should be admitted after the first week, nor for less than one full term. This simple rule wisely and firmly carried into effect would greatly increase the efficiency and value of the schools, and, when once understood, would be cheerfully acquiesced in by all concerned.

THE COURSE OF STUDY.

In assuming so unexpectedly, and on so short notice, the immediate direction of the school on the 29th of August, 1876, the undersigned deemed it unadvisable to make any alteration in its general management, or in the order of studies pursued. It was believed to be best, that, in the main, the plans previously in operation should be continued through the year subject to such minor modifications as experience and circumstances might seem from time to time to warrant. Chief among the embarrassments presenting themselves during the year, has been the impossibility of doing justice to the studies laid down in the curriculum. *The classes have in many cases been overworked.* The time allowed to some of the studies has been altogether too short. A brief and cursory survey only, has been practicable, where thoroughness and accuracy were of paramount importance. A cardinal necessity with the teacher is to know thoroughly and exactly that which he is expected to teach. It is this perfect familiarity with the subjects to be taught, that gives him his power. Hence the habit of his mind should be to go to the roots of whatever subject he studies and teaches. A few things thoroughly mastered are far more essential to his future usefulness than many things superficially and cursorily examined. It is more important that those who go out from these training schools should go armed with power, possessed of a clear head and a self-reliant spirit, able to use what they have acquired, and to acquire what they have not already learned, than that they should have attempted too much and accomplished too little. While the

number of studies in the present course is not too great, when the demands upon the graduate are considered, yet it is the deliberate conviction of the undersigned that one year more should be allowed for its satisfactory accomplishment. This additional year might be occupied with preparatory work on the strictly common school studies, and the standard of admission to the elementary course might be correspondingly advanced. On this plan two or three studies now in the higher, could be added to the elementary course, while more time would thus be allowed for practice teaching, criticism and other professional work of the greatest importance to the future usefulness and success of the graduates from both courses.

CLASSIFICATION OF THE SCHOOL.

The classification of the school, at the beginning of the year, was found to be in a very mixed and confused condition. The causes of this difficulty were two-fold: First—The division of the year into three terms, of unequal length, and the admission of three fresh classes with only one graduation during the year. Second—The disposition of students to select their studies irregularly, instead of taking up and carrying forward the course in orderly succession as set forth in the published curriculum. The remedy of the evil was sought in the removal of its causes. With the approval of the Board, the school year was divided into two terms of equal length, it being understood that there were to be but two admissions of fresh classes, while from the Elementary Course a class might be sent out at the end of each term. The arrangement of studies was modified to correspond with this change in the terms, and the classes have been reorganized on the new basis. The irregularities, growing out of both the causes named, have already nearly disappeared. Every effort is made to discourage a choice of studies out of their proper order and to encourage the practice of taking them up and pursuing them according to the pre-arranged plans. When the new order of things shall have taken full effect there will be but two classes representing each year of the Elementary Course, and one for each year of the Higher Course. For convenience, the several classes are designated as follows: "One-one," first term, first year; "One-two," second term, first year; "Two-one," first term, second year; "Two-two," second term, second year; "Junior," third year, and "Senior," fourth year. The "Two-two" class will here-

after become the graduating class of the Elementary Course, as the Senior now is of the Higher Course.

PROFESSIONAL WORK.

But little provision seems heretofore to have been made for that strictly professional work which is one of the prime objects of the Normal School. Consequently there has been no practice-teaching or criticism during the past year. The two departments allotted to practice-teaching had become greatly reduced in numbers at the opening of the school year, and new teachers had been placed at the head of them, neither having had any experience in the observation and criticism of practice work. It was deemed advisable, therefore, to occupy the year with the effort to increase the attendance in these departments, to improve their condition as to discipline and management, and to lay out a graded course of study for them and the grammar or "academic" department. This work has been accomplished. From an aggregate attendance of between forty and fifty in the two lower grades, the number has been increased to between seventy and eighty, while the grammar department is crowded to excess. It was also regarded as indispensable that a general superintending critic teacher should be secured, who could not only lay out, superintend and criticise the practice work, but give that thorough instruction in the principles of education which alone can impart vitality to practical methods, and redeem the labors of the teacher from the curse of empiricism that must ever rest upon them when pursued in ignorance of those laws which govern and guide the evolution of the human faculties. Provision was accordingly made for the employment of such a teacher, who will enter upon the discharge of her important duties at the opening of the fall term.

Much discussion has arisen over the question of a so-called purely professional course in our normal schools. It has been claimed on the one hand that academic or general studies have no proper place in such institutions, and on the other that only through such studies, actually pursued in the class room, can the best plans of teaching be taught and illustrated. On the theory, now generally accepted, that a thorough and familiar knowledge of that which is to be taught, lies at the basis of a teacher's power, conjoined with the stubborn fact that nearly all who seek admission to the normal

schools are deplorably deficient in this knowledge, there is no room for doubt as to the necessity of rigorous drill on the subject-matter, and in the expression and illustration of that which is to be taught. No person is fit to teach who has not *learned how to teach*. No person has properly learned how to teach who has not rigorously mastered at least one subject in each of the different lines of study embraced in a liberal and general education. A teacher should know every subject he is called upon to teach far better than others are required to know it. If other schools fail to meet this requirement the normal schools must supply the deficiency, all theories to the contrary notwithstanding. One of the excellences of our National Military School at West Point is the rigorous thoroughness with which the general subjects in its course are taught. There is just as good a reason that that school should abandon this class of studies and give itself up exclusively to tactics, strategy and other purely special exercises, as that our normal schools should adopt a similar course. Nevertheless, a very large share of time and attention are bestowed at West Point upon *special studies and upon the actual practice of the duties of the soldier*. So, too, the teachers' seminary should provide liberally for training its students in those theoretical and practical studies that refer directly to their professional work as teachers.

Among the subjects that ought thus to receive careful attention in the Normal School, beside the mere theory and practice of teaching, and criticism, may be enumerated School Economy proper, embracing organization, grading, discipline and general management of schools; School Supervision; the Nature and Ends of Education; the History of Education in the leading civilized countries; Systems of Education; Educational Literature and Biography; School Legislation; the School Laws of the state; the Relations of the Elementary to the Higher Schools; the Relations of Education to the Welfare of the People; the Relations of Education to Pauperism and Crime; the Kindergarten and its true place in the system of public education; Primary Schools and Teachers; Secondary Instruction; High Schools; Universities. The need of definite, exact and specific information upon these and kindred subjects is nearly universal. The ignorance among teachers and educational officers upon this class of topics is truly deplorable. There are thousands, who are at heart friendly to our common school sys-

tem, who are yet too ignorant of its details to be able to defend it against the assaults of its enemies. Thousands of teachers, now employed in the schools of the country, are ignorant of their own professional rights under the laws of the commonwealth. There is, therefore, abundant scope, as well as an urgent need, for the liberal introduction of professional subjects into the courses of our Normal Schools, and it is in this direction that they should constantly seek to enlarge and expand.

VOCAL MUSIC AND DRAWING.

The provision for vocal music during the past year was quite inadequate and unsatisfactory, while none at all existed for drawing. These branches are so important in their influence upon the cultivation of the taste and the moral nature, and the latter sustains such close relations to the great industrial pursuits of life, that no course of preparation for the teacher can be regarded as complete which ignores their claims. Accordingly, in the re-organization of the school for the ensuing year, these branches have been assigned a definite place in the course, and will receive daily attention in the classes at the hands of accomplished special instructors.

ENGLISH LANGUAGE AND LITERATURE.

The ability to use the English language with freedom, precision and elegance, both in its oral and written form, is a prime necessity with the teacher. Hence the normal school should avail itself of every practicable means for cultivating the use of language. The drill of the class room in connection with all the subjects of instruction should include accurate and ready expression. Every lesson, whether it be in mathematics, physics, or metaphysics, should also be a drill in language. No looseness either in construction or vocalization ought to be tolerated here. Under a thorough system of training, the measure of the pupil's ideas and attainments should be their expression in appropriate language. It is thus that his power of communicating knowledge is made to keep pace with its acquisition. It is thus that he is furnished with a means of mental admeasurement and of developing that rational spirit of self-reliance that will carry him through many of the most trying exigencies of life.

Superadded to these helps, however, the teacher must be furnished with the means of literary culture. He must study the

writings of the best authors and learn to love those gems of thought and expression that sparkle from the pages of our standard literature. To this end the special study of rhetoric, literature, and composition with constant practice and criticism in the light of the best authority, must constitute a part of his preparation. A failure in this department of training will prove a failure altogether. Recognizing this fact, arrangements have been made by the board under which careful and prolonged attention will hereafter be bestowed upon the practice and criticism of literary composition by the more advanced classes, both in the elementary and higher courses of the school.

THE DISCIPLINE OF THE SCHOOL.

That system of training which neglects to recognize the habits and character of the future teacher, and omits to do all that is possible for both, is radically and deplorably defective. The greatest power in the school-room, either for good or evil, is the teacher himself. The greatest question of all is, therefore, who and what is he? The chief end of his labors should be, not the mere teaching of certain branches of study, not alone the imparting of knowledge, but the formation of character. In this work his own character is the chief factor. So, too, the seminary which assumes to prepare him for his momentous duties should look well to the regulation of those habits, and the cultivation of those qualities of mind and heart, of thought, emotion and action, that shall make him a model for his pupils and a man who shall be able to secure the respect and confidence of the people whom he is to serve. In the discipline of the institution these truths are kept constantly in view, and every proper occasion is embraced to inculcate those precepts and enforce those practices that tend to inspire the soul with lofty ideals, and habituate the student to those noble actions that favor the development of such a character as will fit him for a position of commanding influence, and eminent usefulness in the profession of his choice. Habits of attention, obedience, regularity, neatness, self-respect, respect for the feelings, rights and property of others, honesty, industry, kindness, forbearance and charity, are commended to all. Under this *regime* the evidence is accumulating that there is here that true growth of character which affords the highest evidence of success in the effort to prepare the teacher for his responsible work.

THE ART OF ILLUSTRATION.

One of the distinguishing characteristics of modern teaching is the great importance attached to the use of apparatus and other means of objective representation. Physical and chemical laboratories are now recognized as indispensable to the thorough treatment of natural philosophy and chemistry. Museums of natural history are becoming the adjuncts to every school laying any claim to character and efficiency. Anatomical preparations, dissections, and other elaborate forms of illustration are a *sine qua non* in the intelligent study of physiology, zoology, and kindred sciences. The actual measures of dimension, weight and capacity are the essential aids to a practical knowledge of those standards by which the domestic and commercial exchanges of civilized nations are effected. *The printed page is no longer regarded as a sufficient aid to the clear apprehension of the facts, phenomena and laws of the material universe.* Dim and shadowy perceptions of these truths fail to answer the demands either of a thorough mental training or of this practical and progressive age, which seeks to subordinate all forms of knowledge to the promotion of human welfare in the arts of life. The actual use of apparatus, natural specimens, and all other practicable means of illustration and demonstration, should constitute a leading feature in normal instruction — in the preparation of teachers. The future teacher should himself be trained in the skillful manipulation of these material aids, to the end that he may receive and in due time impart those vivid impressions of truth that invigorate and inspire the mind and lead to useful, efficient effort in the work of instruction. No class of institutions should be more liberally equipped in these respects than our training schools for teachers. If we expect to redeem our common schools from that species of driveling instruction which is now the scourge of their greatest weakness, we must send them teachers whose souls are aglow with living truths, and who possess the energy and skill to impart them forcibly, and with telling effect.

There is especially needed here, at the present time, a better supply of apparatus for illustration in Physics and Chemistry. A first class air pump, a well constructed electrical machine, and a good galvanic battery are among the most urgent wants. The air pump and electrical machine now on hand are worn out and entirely unserviceable. They were, in fact, originally too small to endure the

strain required for actual service. Such apparatus should be large enough to admit of great strength and efficient use. With a moderate and carefully considered expenditure each year, the collection of apparatus could be greatly increased within a brief period without any serious draft on the resources of the school.

GRADUATING CLASSES.

Two classes, one from each of the prescribed courses, were graduated at the close of the year in June. The names of the members of each are hereto appended. All are engaged in teaching, with one or two exceptions. There is good reason to believe that their services will prove to be eminently satisfactory.

Senior Class, Graduated June 14, 1877.

Ada R. Cooke,	Lizzie Wooster,
Flora A. Raymond,	Alvin J. Blakey,
Celia A. Salisbury,	Ferdinand B. Hawes,
Mary E. Taylor,	Rollin Salisbury.

Elementary Class, Received Certificates June 13, 1877.

Hattie M. Dean,	Ida Teed,
Frances Nichols,	Ella M. Moore,
Bessie Skavlem,	William H. Corey,
Louise Townsend,	Vesper Morgan.

CONCLUSION.

The general condition of the school, at the close of the year, was, on the whole, quite satisfactory. The spirit of the students evinced a degree of earnestness, in their work, that is full of promise. The changes in the organization authorized by the board for the ensuing year, will, it is believed, prove to be salutary as indicating that progressive tendency which should ever characterize institutions designed to prepare teachers for the schools of an enterprising and progressive people. The undersigned looks forward to the coming year in the confident expectation that it will be one of the most profitable periods in the history of the institution. In closing this report he desires to tender to the Board of Regents and to its committees his grateful acknowledgements for their cordial support and

generous confidence in the past, and to pledge his best efforts in the future for the success of our mutual labors.

All of which is respectfully submitted.

WM. F. PHELPS, *President.*

OSHKOSH NORMAL SCHOOL.

HON. WILLIAM STARR, *President of Board of Regents of Normal Schools,*

DEAR SIR: The Sixth Annual Report of the Oshkosh Normal School for the year ending Aug. 31, 1877, is herewith submitted.

STATISTICS.

ENROLLMENT BY DEPARTMENTS.

Classes.	Average Age.	Terms Membership.	No. Pupils.
Normal Department—			
Third year	23.3	10.9	10
Second year	21.9	6.98	58
First year	20.	2.25	216
Preparatory	17.8		90
			374
Model Department—			
Grammar grade			86
Intermediate grade			46
Primary grade			48
Twice counted			
Entire enrollment			554

NORMAL DEPARTMENT—ENROLLMENT BY TERMS.

Terms.	Registered.	Average Member-ship.	Average Daily Attendance.
Fall—			
Gentlemen	108	82.	79.6
Ladies	154	130.6	125.5
Total	262	212.6	205.1
Winter—			
Gentlemen	81	79.9	77.6
Ladies	136	132.	125.7
Total	217	211.9	203.8
Spring—			
Gentlemen	130	123.7	121.8
Ladies	113	111.8	108.3
Total	243	235.5	229.6

Of the 374 enrolled in the Normal Department, 186 had previous experience in teaching; 88 taught within the year subsequent to enrollment, 152 are teaching at present, 139 are members of the school.

It is probable that others are engaged in teaching who have not yet notified me.

EXAMINATION FOR ADMISSION.

	Ex- amined.	Ad- mitted.
Gentlemen.....	111	92
Ladies.....	145	104
Total	256	196

GRADE OF APPLICANTS.

Number obtaining an average above 70 per cent.....74
 Number obtaining an average above 60 per cent. and below 70..72
 Number obtaining an average above 50 per cent. and below 60..51
 Number obtaining an average above 40 per cent. and below 50..29

The two highest grades were classed as "first year" and "first year *trial*," respectively, and received free tuition; the last two grades as "preparatory" and "preparatory on trial," and paid tuition until passed to first year work. Those classed as "preparatory trial" were often mature in age but, lacking proper training, had little scholarly attainment.

While the culture of applicants is certainly better from year to year, the great scarcity of good preparatory schools in this part of the state makes it necessary that many should leave home for a good rudimentary instruction. This necessity renders it desirable that those intending to fit for teaching should be permitted to make preparation in connection with the normal school. The highest class of the grammar grade of the model department is therefore devoted to sub-preparatory work. But the demand is so great that, even with enlarged facilities in that department, the preparatory class of the normal department is still necessary. So long as it is wholly self-supporting, it seems advisable to continue this training to the extent of our facilities, until local schools shall, by gradual improvement, naturally take its work to themselves.

The indications are that superintendents of schools are exercising more caution in recommending those who fail to secure third grade certificates in their own counties, to the Normal School.

It is very natural, and perhaps, wise to retain the best teachers of the county in the work where good teachers are rare; but normal schools can never do what they might to permeate the profession with trained *leaders* until the very best material is urged to seek training for the work. The forlorn hope that a normal course may enable some untrained "failures" to change defeat into moderate success is not wholly unfounded; but we, as a profession, have no right to rest content with filling our ranks with mediocrity, however well disciplined it may be. One able mind, infused with a true spirit and having well trained powers, will do more to kindle a like spirit, and aid in inculcating correct use of method in the minds of the young teachers of a county than ten persons of inferior talent who, by training, are enabled to conduct a school fairly, but in whom nothing germinates.

To superintendents and conductors of institutes we look for an appreciation of and response to this request. It is only just to all to say that many normal students are of the former class; but the

argument will hold until the large majority of those making application for admission to normal schools are "picked men;" until competitive examinations are held in each county to determine who, of all, are worthy to receive the training which the state offers.

MORAL CHARACTER.

Although the organic law, under which the normal schools exist, is even more explicit regarding the rejection of every applicant who "is not a person of good moral character," or who shall not appear to possess the traits of an apt or good teacher, than it is in case he may lack intellectual culture; the carrying out of the purposes of the law is attended with difficulties to which your earnest attention is directed.

The superintendents are supplied with blank "nominations" in which "good moral character" is made a part of the printer's duty, and to which most officers subscribe; sometimes with hesitation, as is evident from private letters or subsequent conversations with some superintendents regarding their nominees. Yet no officer has nominated to this school a person so depraved that he could not have obtained abundant vouchers to place him within the pale of "good moral character" as widely interpreted under its different aspects.

When character is vouched for by the superintendent, it is *prima facie* evidence that the candidate is worthy of membership in a normal school, and, so far as character is concerned, to engage in the moral training of our children.

It is no dishonor to the hundreds of noble men and women in training for a work demanding the highest and most irreproachable character, to say that this lax interpretation of good morals often compels them to be associated, for a time, with persons most unworthy of our calling, both in habits and instincts.

Moral character, sufficiently "good" to warrant it worthy of exerting a molding influence upon young children, our future rulers, must not include slaves to appetites confessedly injurious or degrading, cannot permit its possessors to indulge in profanity, nor shelter any one beneath its mantle, whose word is not as good as a bond.

These grosser qualities can be appreciated by all, and, if certified as "good," indicate the widest difference of opinion regarding morality.

Until the seal of official disapproval, based upon careful investigation, is systematically placed upon gross traits, it would be useless to speak of that high sense of honor which deems every duty an obligation dear as life, and realizes that integrity in every thought, word and deed, can no more than fill the measure of responsibility resting upon the teacher.

As a beginning in the great work of awakening the teachers to an understanding that moral character has land marks, if not metes and bounds, permit me to suggest that the blanks furnished superintendents should contain no printed statement of "good moral character," but a foot note of suggestion to that officer, specifying the wishes of the board upon this point.

COURSE OF STUDY.

There having been no change in the course of study during the year, the usual "outline" is omitted.

The conviction of former years that too great a variety of branches is attempted to be taught within the first two years' work, or elementary course, has been greatly strengthened in the experience of the faculty during the past year.

Not more than one-tenth of those admitted to the "first-year" class can thoroughly prepare more than *three* class exercises each day, together with the general exercises, without detriment to health and violence to mental laws. If class work in a normal school is to differ in any worthy sense from ordinary academic training, it must consist not alone in the student's ready reception of thought or his power to trace effect to cause and deduce conclusions, but in his careful reflection upon the best manner of presenting the results of study to his class-mates.

This "best manner" must be something more than the mere choosing language sufficiently accurate to be understood by attentive equals who, like himself, have first carefully investigated the same subject. The preparation for class must involve the effort to, so present the subject that language and manner shall *impress* as well as express the thought. To acquire this power is indispensable with the teacher, yet it demands no less time and thought than the initial acquisition of the subject matter.

Convinced that this essential feature of normal work is, in a great measure, thwarted by the absorption of the entire energies of stu-

dents in the acquiring of knowledge through too varied a range of branches, I would solicit the careful attention of the regents to the necessity of a simplification of the curriculum of the normal department.

MODEL DEPARTMENT.

When the student has become habituated to presenting his knowledge clearly in class, with such frequent origination of apt illustrations that this work no longer taxes him to the utmost, he is to be tested regarding his power to stimulate others to inquiry and earnest application. This is attempted in his work as "practice teacher" through one year of satisfactory teaching before he is permitted to graduate. The fact that the charge of a class does not involve all the detail of school management, and is, therefore, so far, an incomplete test of the person's ability, is known to none more fully than to those in charge of practice teachers. A very important compensation must not be overlooked, namely, that of constant and critical supervision of the students' teaching, with daily and specific inquiry regarding his plan of work for the subsequent lesson (so much closer both in suggestion and inquiry than is possible even in the best supervision of graded schools).

In no other part of the course is the student brought in such intimate relation with that most difficult part of the school problem, child nature. All his resources of capacity and attainment must be brought to bear at this point, either in the conduct of his work, in sustaining his plans under the criticisms of his supervisor, or in the critical comparison of views in the "practice teachers' meetings."

During the year, between 60 and 70 students, chiefly of the second and third year classes, received from eight to twenty weeks of this training.

Whatever lectures upon the art of teaching or work in the class may have done to induce the student to turn from habits of introspection to an examination of methods of reaching other minds, it demands that this practical, face-to-face responsibility be laid upon him before the student will gain that control of appliances and his own powers, which is indispensable in teaching. Every student who has been trained in this work, esteems it a privilege of the highest value.

SCHOOL APPLIANCES.

During the year, a commodious enlargement of the building was made, which leaves little more to be desired in facilitating the needful work of the school in all its phases. Notwithstanding the increased room, it was promptly occupied by those awaiting its opening, and to-day, a list of fifty applicants for admission to the different grades, stands ready to take the first vacancies.

INSTRUCTORS.

The corps of teachers was changed during the year by the employment of a teacher of the primary grade, in place of Miss Noyes, and of a teacher of drawing, in place of Miss Taylor. In other respects no changes were made; and the faculty was organized as follows:

NORMAL DEPARTMENT.

GEO. S. ALBEE, President,
School Management, Mental and Political Science.

ROBERT GRAHAM,
Reading, Music, and Conductor of Institutes.

WILLIAM A. KELLERMAN,
Natural Science.

MORTIMER T. PARK,
Book-keeping and Callisthenics.

ANNA W. MOODY,
History, Civil Government and Rhetoric.

MARY H. LADD,
Mathematics.

HELEN E. BATEMAN,
English Language and Composition.

ROSE C. SWART,
Geography, Penmanship and German.

EMILY F. WEBSTER,
Latin and Assistant Mathematics.

Special Teacher.
AMELIA E. BANNING,
Drawing.

MODEL DEPARTMENT.

MORTIMER T. PARK, Director.

MARIA S. HILL,
Critic Grammar Grade.FRANCES E. ALBEE,
Critic Intermediate Grade.IRENE E. GILBERT,
Critic Primary Grade.*Special Teacher.*ANNA S. CLARK,
Vocal Music.

GROWTH OF SCHOOL.

The need of a sufficient number of students to permit a reasonably close classification of the diversely trained candidates seeking admission to a normal school, often leads us to estimate the growth of a school by its increase in the number enrolled. But this is not necessarily an index of the real growth of a school, however desirable it may be. While the years have brought continually increasing numbers to the school, there has been an important growth in the intelligent spirit with which candidates enter upon their normal work. This growth, in ready adoption of all means required in the training, has greatly facilitated the progress of our work.

There has been a no less important adaptation of each teacher's method of instruction, to the needs of the student. The improvement on the part of the students is doubtless largely attributable to the wide dissemination of a knowledge regarding the leading principles of the school work, both by the conductor of institutes and former pupils. The growth in work of the faculty is the natural result of the long continuance of nearly the entire corps in their respective departments, combined with the most untiring devotion to the work which suffers none to rest content with past attainments, yet holds fast to the good until the new is proved better. Moreover, those elements of progress contained in encouragements and strictures of thoughtful men of the state, both in and out of the profession, have conspired, we trust, to prevent the undue development of those eccentricities which seem to naturally take life in persons devoted to special work, and obliged to shut out something of the world in the concentration of effort.

With a continuance of the generous support of the Board of Regents, and the ready suggestions of diverse views to provoke re-examination of accepted theories, and stimulate to higher aims, we hope to be of greater service to the schools of Wisconsin than the pioneer growth of the school has been able to accomplish.

Most respectfully yours,

G. S. ALBEE.

OSHKOSH, WIS., December 27, 1877.

RIVER FALLS NORMAL SCHOOL.

HON. WILLIAM STARR,

President Board Regents, Normal Schools,

DEAR SIR: — The work of this school during the past year has been that of development of the conditions of organization of the previous year. The school represents a creditable amount of growth in the unity of purpose, and in the consequent intensity of present work. The attention of young men and women has been more thoroughly fixed, and patient inquiry has resulted. Some students, however, and some citizens still insist that in order to justify an existence, the normal school must possess power to do much better literary and professional work for teachers in less time than other schools can do the same amount of literary work. The thought makes slow progress that to learn a fact and its relevance to the child's mind, requires special effort and much time. The belief is prevalent that to teach, simply implies the telling of the isolated facts inventoried upon certificates, in the presence of a child. The hope is general, that reputed exceptional power in the solution of problems, and in the narration of facts, embraces the needful requisites of a teacher. So some students expect to learn more rules for the solution of mathematical problems, and to discover short methods of obtaining results, and the school occasionally receives a student who has formed no purpose, but to attend because others attend.

Many students have surprised the faculty, on application to the school, by evincing some characteristics of the normal student, having been taught by former members of the school. It has been an extremely hopeful index of the future influence and usefulness

of the school, that, at the commencement of the third year, os marked sympathy exists.

The course of study has been developed by the apparent needs of the first two years of work. The published course for the last year is subject to modification as the needs of classes shall warrant.

COURSE OF STUDY OF NORMAL GRADE.

ELEMENTARY COURSE.

First Year.

	FIRST TERM.	SECOND TERM.	THIRD TERM.
READING.....	Reading, Orthoepy, Spelling.	Reading, Orthoepy, Spelling.	Reading, Orthoepy, Spelling.
LANGUAGE	English Grammar.	English Grammar.	Sentent'l Analysis, Composition.
MATHEMATICS.....	Analysis of Problems.	Analysis of Problems.	Elementary Algebra.
HISTORY.	U. S. History.	U. S. History.	Constitutions.
PHYSICAL SCIENCE ...	Local Geography.	Local Geography.	Botany.
PROFESSIONAL	School Organization.	School Organization.	School Organization.

Second Year.

	FIRST TERM.	SECOND TERM.	THIRD TERM.
READING.....	Analytical Reading.	Select Reading.	Word Analysis, Rules of Spelling.
LANGUAGE	Composition, Rhetoric.	Latin, Essays.	Latin.
MATHEMATICS	Elementary Alg., Accounts.	Plane Geometry.	Science of Arithmetic.
HISTORY. PHYSICAL SCIENCE.....	General History. Physical Geography.	General History. Physical Geography.	Civil Government. Physiology.
PROFESSIONAL	School Management.	School Management.	School Management.

HIGHER COURSE.

Third Year.

	FIRST TERM.	SECOND TERM.	THIRD TERM.
LANGUAGE	Latin.	Latin.	Latin.
MATHEMATICS.....	Geometry.	Higher Algebra.	Trigonometry.
PHYSICAL SCIENCE...	Physics.	Physics.	Zoology.
PROFESSIONAL	Theory and Practice.	Theory and Practice.	Theory and Practice.

Fourth Year.

	FIRST TERM.	SECOND TERM.	THIRD TERM.
LANGUAGE	Latin.	Latin.	Latin.
PHILOSOPHY	Mental Science.	English Literature.	Theses.
PHYSICAL SCIENCE....	Chemistry.	Astronomy.	Geology.
PROFESSIONAL.....	Theory and Practice.	Theory and Practice.	Theory and Practice.

A class was examined in June by the committee on senior classes, of the regents, and its members are entitled to certification as to the completion of the elementary course. All these students, however, have entered upon the higher course.

The work of the model grades has been prosecuted with satisfactory results. The primary and intermediate grades have been filled to the full limit by children whose homes are chiefly in River Falls.

Three hundred and forty-one different students have attained membership during the year, distributed as follows:

In primary grade	51
In intermediate grade	48
In grammar grade.	60
In preparatory and normal grades	184

Twelve counties were represented in the preparatory and normal grades, and twelve students of these grades resided in other states.

During the year, the attendance of students was seriously interrupted by epidemic disease, though all normal students ultimately recovered health.

The adjustment of the relations of students recently transferred from home associations to new abodes, has been attended by most satisfactory results, through the prudent care of the citizens, who have tendered courteous hospitality.

The visits of Regents and of other intelligent citizens, have aided in the development of the school. The faculty have made a determined effort in the interests of the students.

Respectfully,

W. D. PARKER.

Reports of Examining Committees.

PLATTEVILLE NORMAL SCHOOL.

HON. E. SEARING,

Superintendent of Public Instruction:

The board of visitors invited to examine the normal school at Platteville, beg leave to report, that their task was a very pleasant one. We found the school well housed, in a large, convenient and attractive building, surrounded with ample grounds, and furnished with abundant material for the comfort and efficiency of the school. The general aspect of the school impressed us favorably. There seemed to be perfect harmony between teachers and pupils; there was an eager attentiveness in the scholars which is the most hopeful mental attitude in such an institution; the disciplined movement of the various divisions in passing from room to room, had an easy energy and exactness that indicated a well drilled order; and the *morale* of the school was excellent.

The material of which the pupil-force is composed is, in some respects, a difficult one to mould. An unexpectedly large proportion of it consists of persons somewhat mature in age, but having had very limited preliminary training, so that they have still to struggle with the rudimentary branches of study. This is a fluctuating element, too, many of these persons being in the school but a few months at a time. The crudeness and instability of this material

is a decided drawback to the work which these teachers are well qualified to perform. Yet it gives ample testimony to the great value of the school; for this powerful drawing from farms and mines, of young people whose previous advantages have been limited, shows that it has waked up an appetite for larger knowledge and higher usefulness in southwestern Wisconsin. Many of these tardy beginners, though a little stiff in the joints at first, develop a good deal of strength as they advance through the course, and make capital teachers. Instead of discouraging the attendance of this class of pupils, therefore, we would persuade more of them to come, and to make thorough work in taking the entire course of instruction.

The necessity of training such material in the rudimentary branches makes the preparatory and academic departments of the school a vital necessity. But as this branch of the work nearly supports itself—the pupils who are not doing strictly normal work paying about \$3,000 a year for tuition—it does not divert to itself funds intended for the higher department; while it is itself a constant feeder of the normal department. These well-filled and well-conducted lower rooms also give the young teacher good models of how such schools should be conducted, and afford a field for that “practice work” which is a very important part of the normal training.

The quality of the teaching in all the grades is, for the most part, exceedingly good. In some cases it is so stimulating, incisive and effective that it can hardly be surpassed. Perhaps there may be a more economical adjustment of the labor in some instances, with advantage.

We were much pleased with the success of the musical training. Not only does it contribute much to the pleasure, order, and accurate movement of the school, but it gives to the pupils a personal accomplishment, which will be a lifelong social and domestic blessing. It is to be hoped that this work in the normal school will go far toward increasing the careful musical training of children in all the public schools of the state. The marked success of the work here should be an encouragement to others. The ease and sweetness with which the five-year-olds in the primary room read their notes, illustrated the fact that music is merely a natural language, that any child can learn to read. And the rich, strong harmonies

of the highest room, showed that a few months of skilful work can transform a whole school into a great choir, able to delight themselves and others with their songs.

The administration of the school, mindful of the special object for which it was established, concentrates its work upon the training of teachers for the state. This normal work is thorough, comprehensive and conscientious. Aside from the regular curriculum of studies through which the embryo teacher must pass, a very complete course of lectures is given upon those topics in which he needs information, advice and stimulating suggestion. And each normal scholar is obliged before graduation to take forty weeks of "practice teaching," under the criticism of the professor in charge of this department. During the past year there has been an aggregate of 735 weeks of this work. This discipline is of course invaluable to one who is learning the educator's art, and the normal work of this school is worthy of the highest praise.

One or two features of the school appeared to us to be somewhat in need of attention. The physical tone of the school seemed to be low, especially in the winter, when a pallid and non-vital look was observable in many scholars. Now, the best teaching demands a healthy teacher; and the frequent collapses in health among the over-worked teachers of the country ought to forewarn those now preparing for the profession to give special attention to the physical basis of the work. The children of the state, too, who will come under the care of these teachers, will be largely affected by their ignorance or knowledge of the best physical conditions of study. We suggest, therefore, that there should be practical instruction given with regard to hygiene and the physiological laws to be observed in the school-room; and also daily drill in such light gymnastics as will both give relief and stimulus to the brain work of the school, and afford a model for physical culture in other schools.

We suggest, also, that more attention might be given with advantage to English composition. There is no art of which the teacher more needs to be master than that of a quick, correct and happy use of his mother tongue. Celerity, accuracy and fullness of thought, and fitness of expression are of the first necessity in his work. There is danger that in the routine of the classroom the mind may gain a readiness in mere mechanical processes of learning,

without gaining a clear grasp of ideas, and facility and precision in expressing the ideas. If it were possible to carry along through the whole course more special practice in English composition, and such rhetorical exercises as would promote the self-possession of one's thoughts in public, it would develop this much needed ability.

C. H. RICHARDS,
D. H. FLETT,
P. A. ORTON.

OSHKOSH NORMAL SCHOOL

To the Hon. EDWARD, SEABING,

Superintendent of Public Instruction:

SIR: The undersigned committee, appointed to visit the State Normal School located at Oshkosh, have performed the duty assigned them, and would submit the following report of their action:

The first visit was made by the entire committee, in December, 1876; each member subsequently made a visit, devoted to such special points of inquiry as he thought of importance.

We found the buildings and grounds in good order, although the erection of the much-needed addition was going on. This increase of accommodations will obviate the necessity of any further occupancy of the basement, which is inconvenient of access, badly lighted and badly ventilated.

Under all these disadvantages of want of room, and the incessant noise incident to the building of the new wing, the general order was good, and the studiousness and earnestness of the pupils quite noticeable. Promptness and precision seemed to characterize every exercise. At first it appeared to your committee that this promptness of order was secured at too great an expense of time and strength, with a tendency to fall into a mere mechanical routine, particularly in the lower academical classes. It is possible, in this respect, to set the standard too high, with little children, and to demand a perfectness of deportment with difficulty maintained even by older pupils, giving so much time and strength to mere order and drill as to have little of either left for the immediate pursuit of study. But, considering the scope of the school, and

that the primary object of having these elementary classes connected with the school is not for their instruction, but for the discipline of the teachers; and considering that so many teachers fail through inability to maintain order, your committee are rather disposed to commend than criticise this feature. We have known teachers who could keep order but could not teach; but we have known far more who could teach but failed in keeping order.

The instruction was uniformly of a superior order. Every teacher from the accomplished president to the student in the practice school, seemed actuated by a hearty devotion to his calling. Indeed, some of the best work that we saw was being done by recent graduates of the school, which is the best possible proof of the thoroughness and practical value of the discipline there given. An institution of learning can be best judged in its graduates. The instruction seemed especially directed to a thorough mastery of the subject taught, and to accuracy of statement in recitation. If we were to criticise the methods of instruction, we would question the wisdom of laying such uniform stress upon absolute accuracy of statement from pupils in the lower classes. The importance of accuracy cannot be overrated, but perfection in this as in other things cannot be reached at once; we must work gradually up to it. In some instances classes seemed to be worried and fretted by repeated criticism, not of their ideas, but of their methods of statement, and thereby failed to do themselves justice.

In this connection we would notice the model school. A normal school furnishes an outline which each pupil, as he becomes a teacher, must fill up for himself. It ought not to prescribe a system so rigid as to leave no scope for the individuality of the teacher, and yet it ought to prescribe a system of general rules to be specialized by each teacher in his application of them. No teacher is so gifted as not to be benefited by the labor and experience of others, and no teacher is so endowed by nature or experience as to leave nothing for others to learn. We consider the model school as essential to the success of the normal school, by affording the opportunity for the personal application and appropriation of the principles taught; and in this respect the academic department is of hardly less importance.

The first requisite to successful teaching is thorough knowledge—a knowledge that extends beyond the limits of the text-book, and

reaches a general mastery of the subject. The teacher should not exhaust his knowledge by his daily instruction. For instance, to teach arithmetic well, a knowledge of algebra is essential; to teach English grammar well, the general principles of grammar must be understood. As our school system is at present organized, the academic department in our Normal Schools seems to us a necessity in securing this general culture. It is not enough to know the mere routine of the branches taught in our district schools; the teacher should possess culture as well as knowledge. The character of the instruction given in this department also affords a sufficient warrant for its existence. In ordinary high schools, knowledge is the end sought in the instruction — the mastery of the subject; in this department of the Normal Schools, instruction does not stop here, but adds to mastery of the subject, the ability to teach it.

The second requisite to success in teaching is correct method. A teacher who will prove successful must, to a certain extent, devise his own methods, but to a certain extent he must be guided by the experience of others. His own methods must be joined on to the methods approved by experience, and this can only be done by actual practice in teaching. This work was done, and admirably done in the model school — each student having the benefit of extended practice under the guidance of the director, instead of being left to find his way by doubtful experiments when harassed by the manifold perplexities of his first school.

No department of the school impresses us more favorably than this, as to its practical value to the young teacher. Indeed, we think its importance would amply warrant its continuance, even if no tuition fee were demanded of pupils. Without it, the Normal School must confine itself largely to theory; with it, each young teacher tests in his personal experience every theory advanced, and adjusts his own individual methods to the principles he has been taught.

Upon the whole, the school seems, to your committee, ably officered and admirably managed; and we are not sure but our criticisms are due rather to our inexperience than to any defect in the conduct of the school, and where so little is objectionable, we prefer to run no risk in commending, than to unjustly condemn. Such an educational work must be judged with reference to the difficulties to

be overcome, and not from mere theoretical considerations. It must take pupils where it finds them, and carry them as far as it can.

The strict work of a Normal School may, theoretically, be confined to the field of didactics, but practically it must carry the student over the intermediate ground between the knowledge of the common branches and the theory of teaching. We are not sure that anything would be gained were it possible for our Normal Schools to begin their course with greater preparation on the part of their students, for in most instances this would be the substitution of comparatively poor teaching for excellent teaching, and inadequate and superficial preparation for the present thorough instruction ; but we do feel that a great advance would be gained, if students could be induced to stay through the strictly professional course, instead of stopping so generally with the completion of the academic course. We have no recommendation to make in this regard, but would suggest that an adjustment of the courses of study with a view of making the advanced course more strictly technical, and the academic course more strictly preparatory, would have a tendency in the right direction.

In conclusion, we would heartily commend to the continued confidence of the people of the state, and to the cordial support of our teachers the Normal School of Oshkosh.

Respectfully submitted,

STEPHEN H. CARPENTER,
WESLEY C. SAWYER,
LYDON W. BRIGGS,

MADISON, August 31, 1877.

Committee.

RIVER FALLS NORMAL SCHOOL.

HON. EDWARD SEABING,

Superintendent of Public Instruction:

Your committee appointed to visit the Normal School at River Falls, for the year ending June 21, 1877, would respectfully report as follows:

They were engaged a number of days at different times, during the winter and spring terms, in the examination of the grounds and the building of this institution, and in a careful inspection of the

work performed by the teachers in their classes. They were received most cordially by the faculty, and every facility was afforded them in making their investigation thorough and complete. Each member of the committee, without being influenced by the others, formed his opinions on all essential points; and in respect to these, the agreement was, in the main, uniform.

THE GROUNDS AND THE BUILDING.

The spacious grounds, which are covered with grass and inclined gently from the building, are kept in a neat and cleanly condition. A larger number of trees, both deciduous and evergreen, should be planted in various parts of the grounds to furnish an ornament and to protect the walks from the severe winter winds of that section. In time, they would also afford a most agreeable shade.

The large edifice, built of reddish brick, has a bare and forbidding aspect as it stands by itself upon the open prairie. It would be relieved, in this respect, by the trees when grown to a considerable height. All the halls and rooms of this building, which are well arranged for the purposes of the school, have received the watchful attention of the president, and no marks on the walls or other injuries by the students were visible anywhere. The numerous cracks in the plastering of nearly all the rooms, caused by the shrinkage of the imperfectly seasoned lumber, are very unpleasant to the eye and should be filled up at once. The recitation rooms and the general assembly room would be greatly improved in appearance if select engravings and paintings were hung upon the walls.

THE DISCIPLINE.

To our minds the most thought has been given to the department of discipline. This was, in every place, most excellent. Promptness in attendance, abstaining from unnecessary communication, close attention, and willing and patient industry were observed in the recitations and the general exercises. The movements of the students in passing from room to room were executed with the readiness and precision of military drill. Still their bearing and their expressions in the classes were not stiff and formal. Even among the pupils of the model department we noticed no chilling restraints. The address of the Normal students to their teachers was deferential, yet free and animated. In their intercourse with each other, we discovered nothing which was not cour-

teous and gentlemanly. We learned that their work at their homes and boarding places in preparing for their recitations, was under the immediate supervision of the faculty.

INSTRUCTION.

The Institution has been unfortunate in a portion of its instructional force. The teacher of the intermediate department had been absent a part of the year on account of illness. The lady in charge of the grammar department left near the beginning of the spring term, apparently broken down in health. The professor who gave instruction in the physical sciences, though a thorough scholar in his department, failed to adapt his teaching to the needs and abilities of his classes, and he resigned during the winter term.

The work in the practice class was conducted in a manner which tended to make the student-teachers familiar with every day work of the school room, and to eradicate false notions and methods in school economy.

The drill in mathematics was very satisfactory. The labor here has been to ground the pupils in the principles, so they may readily grasp the details.

The geography classes were in the hands of a master, and superior results were reached.

The students pursuing the physical sciences ought generally to restudy them.

We were highly satisfied with the work in the reading classes. The method pursued here was a wide departure from the old thought killing style. A special effort has been made by the teacher to induce the student to acquire a taste for general reading. The exercises in orthoepy, though not inferior were not of the highest grade.

The instruction in history did not at first impress the committee as of the best character. It lacked breadth and philosophical treatment. Still the classes seemed deeply interested in the study, and sustained a good examination at the close of the year.

Our observations in the teaching of grammar were favorable. Perhaps, the students depended too much upon their text-books for authority and for the illustration of the rules.

At our last visit, the teacher of the intermediate department had recovered from her illness, and was bringing out very excellent results with her pupils.

We were well pleased with the condition of the primary department. The lady in charge seemed well suited to the position.

During the spring term the grammar department was suspended, and the classes, in part, were placed under the supervision of a new teacher, who was exhibiting superior abilities.

The evident aim of this school in all the instruction is to secure accuracy of knowledge and independence of thought. The processes employed to reach these ends, with the classes of students in attendance, were in some instances too tedious and expensive. To lead young men and young ladies, well advanced in years, and whose habits of thought are well fixed, through the operations of original investigation, to acquire a knowledge of many subjects discussed in our text-books, occupies more time than can be most profitably spent by them, and exercises other faculties than those usually most active in them. For the grade of students found in our Normal Schools, the text-book, with lessons assigned daily, is indispensable, not as a substitute for all the instruction which the teacher should furnish, but to guide and steady the learner in his examination of the topics.

SPECIAL NEEDS.

The institution is in urgent need of cabinets for the classes in geology, mineralogy and botany. It has not yet been supplied with chemical and philosophical apparatus, and only in part with specimens for the classes in natural history. Maps, charts and drawings on various subjects should be obtained for nearly all the rooms.

GENERAL REMARK.

This Normal School has, in the two years of its operation, passed through a peculiar experience. None of its teachers had ever performed Normal School work, previous to entering the institution. Their observation and instruction had been confined largely to the graded schools of our state. They had but little acquaintance with the material which the country schools, in a comparatively newly settled region, furnish. The evidence is conclusive that they have studied most attentively the situation in which they were placed, and striven conscientiously to adapt themselves and their teaching, in good part, to the traits and necessities of their pupils.

As already intimated, the majority of the students who have been admitted, enjoyed, before hand, very limited opportunities for intellectual culture. They entered with no correct habits of study, with imperfect notions of the work to be accomplished in a Normal

School, and with no well defined knowledge of the simplest branches taught.

To create a Normal School out of this material was a gigantic task. To ask any corps of teachers to give us first-class results under such circumstances, is to ask them to perform miracles. It is no wonder that a large majority of the normal pupils seemed to be struggling under a burden beyond their strength. Not one in ten of them, whose defects may appear fairly removed, will, upon leaving the school, have sufficient power to comprehend the breadth and depth of the educational work committed to his hands. Many of them will but assume some of the language and formalities of the Normal School, without having caught its spirit or mastered its true philosophy, and without the ability to adapt themselves fully to unfavorable surroundings. But time and energy will effectually correct these evils.

W. C. WHITFORD,

W. S. JOHNSON,

AMOS WHITING,

Committee.

REPORT OF THE COMMITTEE ON INSTITUTES.

Hon WM. STARR, *President Board Normal Regents:*

The undersigned, committee on Institutes, herewith submit to the Board of Regents the statements required by rule of the board, showing their operations during the year closing with this date.

By an examination of these statements, it will be seen that sixty-four institutes were held during the year in fifty-three different counties in the state. From all these, reports have been received, except the counties of Kewaunee and Portage. These reports show that an aggregate of ninety-nine weeks of instruction was given; that they were attended by 1,322 males and 3,228 females; that the whole number attending was 4,551. The counties not reporting, together with one institute held in Pierce county, not reported, would add slightly to these numbers.

The whole amount paid to conductors for services and expenses, is \$5,962.79; the whole amount paid for services of lecturers and their expenses is, \$251.20; the whole amount paid for incidental expenses is, \$42.90; the whole amount paid for printing and blank books is, \$256.34; the whole amount paid for expenses of commit-

tee is, \$92.10; and the whole amount disbursed by the committee is, \$6,607.33. This exceeds the amount appropriated by the board, \$107.33, and your committee recommend a sufficient amount be appropriated to cover this deficiency, and also that of last year, \$592.69, which was not provided for because of the inability of the committee to report at the annual meeting, and the oversight at the semi-annual meeting in February last.

By comparison, it will be seen that the number attending the institutes this year is but 109 less than the number attending last year, and the number of days session is about ten less this year, other expenses about \$485 less, and the number of counties in which institutes were held is just the same this year as last.

It would seem, from this statement and comparison, that the limit of institute work has been nearly or quite reached, both as regards demand for it and ability to efficiently and economically conduct it. It is further evident that it requires now an appropriation of nearly or quite \$5,000 per annum by the Board to meet the expenses, and your committee herewith submit a resolution for that purpose, and recommend its adoption. Your committee have found it entirely impracticable to determine with precision, in advance, the expense of a season's institutes, hence the deficiency which has arisen both last year and the present. Your committee also submit a resolution to provide for the deficiencies, and recommend its adoption.

Following is a classification of the expenditures for institutes during the year, omitting the names of the persons to whom the amounts were paid:

Salaries and expenses of regular conductors, Messrs. Graham, McGregor, Salisbury and Thayer.....	\$3,636 73
Salaries and expenses of other conductors.....	2,826 06
Incidental expenses to county superintendents.....	44 90
Paid for lectures and expenses.....	251 20
Paid for printing and blank books.....	256 34
Paid for expenses of institute committee.....	92 10
Total..	\$6,607 33
Amount appropriated by Board of Regents.....	\$4,500 00
Amount of state appropriation..	2,000 00
Total.....	\$6,500 00

Following is a tabulated statement showing the number of institutes held during the year, the name of the county where held, the

duration of each, and the number attending each, classified as males and females:

No. In-stitutes.	NAME OF COUNTY WHERE HELD.	Duration.	NUMBER ATTENDING.		
			Male.	Female.	Total.
1	Adams, joint with Marquette.	2 weeks.	18	93	111
1	Barron	1 "	8	14	22
1	Brown	4 "	24	60	84
1	Buffalo	1 "	12	23	35
1	Calumet	4 "	17	51	68
1	Chippewa	1 "	18	51	69
1	Clark	1 "	10	45	55
1	Columbia	1 "	49	142	191
1	Crawford	2 "	17	33	50
2	Dane, 1st district	2 "	77	107	184
2	Dane, 2d district	2 "	70	148	218
2	Dodge, 1st district	2 "	66	110	176
1	Dodge, 2d district	1 "	10	39	49
1	Door	1 "	8	10	18
1	Dunn	1 "	20	38	58
1	Eau Claire	1 "	25	64	89
1	Fond du Lac	1 "	100	200	300
1	Grant	2 "	25	75	100
1	Green	3 "	34	49	83
1	Green Lake	1 "	16	48	64
2	Iowa	2 "	26	107	133
1	Jackson	2 "	8	56	64
2	Jefferson	3 "	48	87	135
2	Juneau	3 "	36	85	121
1	Kenosha	2 "	32	51	83
1	Kewaunee	1 "	.....	.....	.....
2	La Fayette	3 "	26	93	119
1	La Crosse	1 "	27	43	70
1	Manitowoc	2 "	47	28	75
1	Marquette	1 "	9	51	60
1	Marathon	1 "	13	37	50
1	Milwaukee	1 "	9	18	27
1	Monroe	1 "	39	95	134
1	Oconto	1 "	3	11	14
2	Pepin, one only reported	2 "	31	60	91
2	Pierce, one only reported	2 "	5	21	26
1	Polk	4 "	8	31	39
1	Portage	1 "	.....	.....	.....
1	Racine	2 "	21	51	72
2	Richland	3 "	39	148	187
1	Rock, 2d district	1 "	30	61	91
2	Sauk	6 "	42	113	155
1	Shawano	1 "	3	13	16
1	St. Croix	3 "	14	37	51
1	Trempealeau	2 "	28	49	77
1	Vernon	2 "	39	79	118
1	Walworth	2 "	23	79	102
1	Washington	3 "	31	51	82
1	Wakesha	1 "	26	79	105
1	Waupaca	4 "	12	89	101
1	Waushara	1 "	17	60	77
1	Winnebago	1 "	12	28	40
1	Wood	1 "	5	17	22
64	53	99 weeks.	1,823	3,228	4,551

Respectfully submitted,

W. H. CHANDLER.

STATE TEACHERS' ASSOCIATION.

SEMI-ANNUAL MEETING.

The Wisconsin Teachers' Association convened in executive session in Madison, December 27, 1877, at 9 o'clock A. M. President M. T. Park in the chair.

Prayer by Rev. J. B. Pradt.

The secretary being absent, Mr. E. H. Sprague was chosen *pro tem*.

The chairman of the committee on Normal Schools, Mr. MacAlister, presented the report of the committee, as follows:

The committee to whom was referred that part of the President's address relating to Normal Schools, beg respectfully to submit the following report:

As the whole question of Normal School education is to be fully discussed by the association at this session, and gentlemen have been appointed to present the arguments of both sides, the committee do not feel called upon to go into any detail on the subject.

The committee would simply recommend that the fullest opportunity be allowed for the discussion, as the best means of arriving at definite conclusions on the subject, and introducing such changes in the organization and administration of the schools as may be deemed necessary or desirable.

Respectfully submitted,

JAMES MAC ALISTER,
A. J. HUTTON,
M. KIRWAN,

Committee.

The report was received, and in view of the absence of several persons who were to have taken part in its discussion, the report on "Geological Survey" was read by Geo. R. Kleeberger, chairman of the committee.

Discussion of the report was opened by Mr. Chandler, and continued briefly by other members of the association.

On motion, the report was received.

On motion of Mr. Chandler, the subject was recommitted to the

same committee, with instructions to memorialize the legislature to make provision for a proper completion of the survey.

It was voted to adopt the suggestion of the committee, regarding a mutual interchange of specimens by the schools of the state.

The association then took a recess of five minutes.

After recess, the president called up the order of business that was passed in the morning — discussion of the report on normal schools. The discussion was opened by Mr. B. M. Reynolds, and continued by Messrs. Phelps, Searing, Bascom, Pradt, Chandler, Miss Stewart, and Mr. MacAlister.

On motion of Superintendent Searing, the whole subject was referred to the same committee, with instructions to report, at some time before the final adjournment of the session, a series of resolutions, embodying what seemed to be the sense of those present, as evinced by the discussion.

After recess, the report of the committee on Teachers' Examinations was presented by Mr. A. F. North, chairman.

Questions were asked by Messrs. Emery, MacAlister, Chandler, Albee and Salisbury, and, on motion of Mr. Albee to adopt the report, quite a discussion was called out, and it was finally voted to lay the report on the table until the evening session.

President Bascom extended an invitation to all members of the Association to visit Science Hall, at 3 o'clock p. m.

Adjourned.

EVENING SESSION.

Voted that the report of the committee on Teachers' Examinations be taken up and again read. Owing to the absence of the secretary *pro tem.*, in whose possession the report was, it was voted to proceed to the consideration of the next subject on the programme — "Is the Teacher's Profession Overstocked?" Mr. Salisbury presented a paper on this subject.

Voted that the report on "Teachers' Examinations" be laid on the table until the next session.

The Association then listened to the reading of the report on "State Educational System," by Supt. Searing. The subject was discussed by the following gentlemen:

Mr. Johnson wished to know why county superintendents should not be appointed for more than three years.

Mr. Walker thought that if the report could be adopted and its provisions put in force, they might prove beneficial, but considered that it would not be feasible so long as the appointing power was vested in a body of men who are elected by political parties.

Mr. Wood cited the case of New York, where county superintendents are appointed, and thought there was no danger to be apprehended from this source.

Mr. Shaw was in favor of some such system as the one proposed. Said that the danger to the common schools was a want of uniformity in the educational interests of the state. Those states having a unification of interests in educational matters have a great advantage over us. The trouble with many of our country schools is that the people are satisfied with them. They need inspiration.

Mr. Pradt thought that the time for a State Board of Education, as suggested in the report, had not yet arrived. Advocated, in the appointment of county superintendents, a medium between election and appointment by a State board, namely, by the college of Township Boards. The Township Board suggested by the report, should consist of more than three members. Did not favor too radical changes.

Mr. Phelps approved the report. Said it was a step in the right direction. The main features of the plan suggested were in force in New Jersey. Gave something of the history of the movement in that state. No state has made such progress in the same time as has New Jersey under a State Board. Massachusetts, Connecticut and some other states are working under a similar organization. No danger of a system thus carried on, becoming a political machine. Such a result had not occurred in the states adopting it.

Mr. Guernsey corrected a statement of Mr. Pradt, in relation to the Pennsylvania system. The township system in that state was first made optional, afterward obligatory. Was well liked. There are six directors in each township, who elect the county superintendent. Thought that \$2,000,000 raised by state tax would be much more useful than the same amount used according to the present plan.

Mr. MacAlister was in favor of making haste slowly. It would be well to discuss the question until it is thoroughly understood.

Great need of the suggested reform. List of defects given in the report, might be much enlarged. No part of our governmental organization is so mismanaged as our schools. This is due to the defects mentioned in the report. Thought that the proposed system would not become a "political machine." Was favor of civil service reform in all departments of government. The schools should take the first step in separating politics from civil service. Referred to the perfection of the Canadian school system. We must approach the question of taxation cautiously. People are not educated in this point. People do not all understand that government is only the means of doing that for them which they cannot so well do for themselves.

Mr. Walker thought his point well taken. That the discussion in the United States Senate, of the proposition to make the supreme court a grand returning board, indicated a danger in the direction indicated in his first remarks.

Mr. Junor expressed himself as in favor of the report.

President Bascom offered the following resolution:

Resolved, That we, the Wisconsin Teachers' Association, do hereby express to the legislature of Wisconsin our desire that a uniform state tax, for the support of the public schools, be imposed, aggregating annually, with the income of the school fund, not less than one-half the cost of the schools, one-half of the proceeds of such tax to be distributed in proportion to the aggregate attendance upon the schools in any locality.

Adopted.

Mr. Chandler had seen nothing to make him believe that such a system would degenerate into a political machine. The district board was not a political machine. No denial of the evils enumerated. Has the proposed system in itself, a promise of remedy for these evils? The fact of the experiment having been successfully made in one state was better than mere argument. People not entirely satisfied with their schools. Reason for cutting down the expenses of schools in many cases, is the small value of the schools. Thought that nine-tenths of the evils attending our common schools could be done away with by the adoption of the township system.

Mr. Delaney was opposed to any system of appointive power. Thought the power to create a state board might be as safely entrusted with the people as with the governor.

Mr. Rockwood spoke in favor of the adoption of the proposed plan.

Mr. Salisbury proposed and moved the adoption of the following resolution:

Resolved, That the report now before us from the committee on a state system of education be hereby adopted, as expressing, in its general plan, the sense of this association.

The resolution was adopted.

Association adjourned to 9 o'clock Thursday morning.

THURSDAY, Dec. 28 — MORNING SESSION.

Rev. J. B. Pradt opened the session with prayer.

Mr. MacAlister, chairman of the committee on Normal Schools, asked to be relieved from making any further report. Committee was discharged without further consideration of the subject.

Mr. Graham then presented the following resolutions, which were adopted:

WHEREAS, An unforeseen combination of circumstances prevented the committee on resolutions from making a report at close of session in Ju'y, therefore the committee respectfully ask the privilege of presenting the following report at this session, and move its adoption:

Resolved, That we hereby express our appreciation of the courtesy extended to us by the press of the state, in giving notice of this meeting, and to the city dailies of Milwaukee for special reports; to the hotels and the various lines of railroads and steamboats, which have given us reduced rates of entertainment and fare.

Resolved, That our hearts *feel*, more than words can express, our obligations to the able corps of Milwaukee teachers, who arranged so admirably, and carried out so perfectly and munificently their plans for our comfort, pleasure and profit; to Prof. Geo. Brosius and his class, for the exhibition of school gymnastics; to Prof. Priem and the children for their admirable concert; to the officers and band of the National Soldiers' Home for their hospitable entertainment; to the Hon. Alexander Mitchell, who so kindly invited the association to his beautiful residence and grounds, and especially to Hon. Joshua Stark, President of Milwaukee School Board, and Supt. MacAlister, the prime movers and managers of this most successful Centennial convention.

Resolved, That we, particularly this Centennial year, make mention of our appreciation of "Educational Reminiscences," of Wisconsin, by Hon. J. L. Pickard, of Chicago, whom we have long delighted to honor as one of the pioneers of this state.

Resolved, That we hereby extend our thanks to Hon. J. B. Angell, LL. D., President of the Michigan University, and Rev. G. E. Gordon, of Milwaukee, for their highly instructive lectures.

Respectfully submitted,

ROBERT GRAHAM,
W. D. PARKER,
M. KIRWAN,
Committee.

The report of the committee on the "Function of the High School," was read by Albert Hardy, chairman, and the report was accepted.

N. C. Twining presented the report of the committee on "Course of Study for Mixed and Graded Schools."

Mr. Shaw followed with a paper upon the "Relation of the University to the High School."

The report of the committee on "Course of Study for Mixed and Graded Schools," together with further consideration of the whole subject, was referred to a committee composed of Messrs. Robert Graham, Samuel Shaw and W. B. Minaghan, to report at the next annual session of the association.

After a recess of five minutes, Supt. Searing made some remarks concerning the possible discontinuance of the *Wisconsin Journal of Education*, and, on his motion, a committee of five was appointed to take into consideration the subject of educational journals, to report at the evening meeting.

Fifteen minutes were then devoted to the discussion of certain questions growing out of the report of the committee on "Course of Study for Mixed and Graded Schools," said questions relating to the courses of instruction in the University.

Dr. Bascom thought it would be wise to continue for some time the preparatory course of the University, having in view its entire removal at some subsequent time. When removed, it should not be removed piece-meal, but altogether at once. Thought it best to have Greek taught in all the high schools of the state, in cities of 8,000 inhabitants. It will pay to have Greek taught to two or three students, if no larger classes can be organized. When Greek is so taught in these high schools, the preparatory department of the University can be done away with.

Mr. Chandler thought there might be a substitution of other studies for Greek in the high schools.

Mr. Wood stated that in Oshkosh the school board refused to allow classes to be organized unless there were five persons desirous of entering such classes. This action throws Greek out of their high school.

Prof. Emerson said that in Beloit they meet the difficulty by having a philosophical course in which Greek is commenced in the Freshman year.

Owing to the absence of the chairman of the committee on "Classification and Grading," no report was offered, the chairman having the report in his possession.

Pres. Albee, chairman of the committee on "Oral and Text Book Instruction, and Rhetorical Exercises," stated that the subject had been divided, he taking the subject of "Oral and Text Book Instruction," and W. H. Beach the subject of "Rhetorical Exercises."

The Association then listened to the report of Pres. Albee. The report was accepted and additional time granted the committee to further consider the subject.

W. H. Beach then presented a suggestive paper on Rhetorical Exercises.

The President announced the committee on "Educational Journals" as Messrs. Wood, Albee, Reynolds, Lunn and Chandler.

Report of committee on "Higher Education and the University" was called for. In the absence of the chairman of the committee, President Whitford, Mr. North stated that it had been decided to present two reports, the one embodying his views on the subject, and the other, the views of Pres. Whitford.

Pres. Whitford was not able to be present, and his report was not at hand. The other report was then presented by Mr. North. He approved of the voluntary system of support of higher education for the following reasons: 1st. Because the work is not a proper function of the state. 2d. Because the state is incompetent to do this work. 3d. Because a state system is unjust and injurious. 4th. Because pecuniary aid by taxation is unnecessary. 5th. Because the voluntary principle is the more economical, and more likely to secure permanent, zealous, self-sacrificing laborers. 6th. Because state establishments for the higher education, like state religion, breed in the faculty and students contempt for those of equal rank in learning, but less distinguished by material resources, hinder private effort, stifle enthusiasm, and have a tendency to pro-

duce formalism and pedantry, instead of devotion and intellectual life.

Mr. North moved a resolution in favor of the paper read, which was lost by the adjournment of the association.

EVENING SESSION.

Mr. O. R. Smith, in accordance with his time-honored custom, introduced the following resolutions:

Resolved, That the State Teachers' Association of Wisconsin hereby reaffirms its belief in the pressing necessity of a school for the special training of the feeble-minded children of the state.

Resolved, That we most respectfully request the legislature of the state to thoroughly investigate the whole subject and take such action as will at an early date provide such a school.

After some sharp sparring it was moved and carried to postpone further consideration of the subject until next July.

Mr. Phelps offered the following resolution, which was adopted:

Resolved, That the President of this Association be, and he hereby is, requested to extend a cordial invitation to the officers and members of the Michigan Teachers' Association to meet with the Wisconsin Association at its meeting at Green Bay, on the 17th, 18th and 19th of July next.

The committee to whom was referred the subject of "Educational Journals," reported, recommending the continuance and efficient support of the *Wisconsin Journal of Education*. Report adopted.

Mr. Emery, in behalf of the committee on "Early Withdrawal of Pupils from School," presented their report, which was then discussed.

O. R. Smith discouraged making an attempt at legislation to compel attendance, further than it might be effected by a good truant law. Laws would not make parents sensible. Many of the parents do not understand their relations to the public schools. Think they can keep their children out of school at any time without affecting the children or the school. No way to stop it but to keep the children out entirely. Poor schools, bad grading, and ambition of parents, to have their children enter upon some business, fruitful causes of early withdrawal of pupils from public schools.

Mr. Wood stated that in Oshkosh they lessened the evil by having semi-annual examinations for promotions, thus enabling them to classify pupils more frequently and justly, than in the case where promotions are made yearly.

Mr. Salisbury said that in Whitewater a special class was organized for those who could not readily enter any of the established grades. The evil was greater in the country schools than in the village and city schools, due largely to the imperfect way in which work is done in country schools, constantly repeating and never advancing.

Mr. Albee thought that teachers were remiss in their efforts to keep children in school. They should impress their pupils and the parents with the proper idea of the true purpose of an education. Suggested that diplomas should be awarded in the common schools at the close of the prescribed course, as certificates of fitness for citizenship.

Mr. Chandler thought that a prescribed course of study, with a diploma granted as evidence of having finished it, would be an incentive to continued attendance.

Mr. North suggested that the qualifications prescribed for entrance to township high schools offered an opportunity for the application of the plan proposed.

Mr. Rockwood asked if those teachers who succeed best are those who grade their work so as to give their pupils something new, and not oblige them to go over the work already done.

Mr. Chandler said, in answer to Mr. Rockwood, that two classes of teachers succeeded. Those who take up fresh work, and those who infuse new life into the work already imperfectly done.

Mr. Lunn said that too much of the teaching was done as if the sole end in view was to make teachers.

Mr. Pradt said that there was a great need for teachers possessed of versatility and originality, who do not necessarily do their work according to some prescribed way.

Mr. Phelps stated that two things were essential. First, a good course of study, and second, the work of that course well carried out. The *how* was much more important than the *what*. Some limit should be set upon the amount of work attempted in the country schools.

Voted to refer the subject to a committee composed of Messrs. Albee, Phelps and Chandler.

Committee on "Scientific Institute" through Mr. Shaw, Mr. MacAlister being absent, presented a report which was adopted and the committee continued to carry out the recommendations of the report.

No further business being before the Association, President Park was instructed to convey, as the unanimous sense of the members present, their cordial thanks to the publishers of the *State Journal*, the *Patriot*, and the *Democrat*, for their excellent reports of the proceedings; to the railroad companies, hotels of Madison, and the state officers for courtesies extended.

The Association then adjourned *sine die*.

M. T. PARK, *President*.

L. D. HARVEY, *Secretary*.

ANNUAL MEETING.

The Twenty-Fifth Annual Meeting of the Wisconsin State Teachers' Association was held in Turners' Hall, at Green Bay, commencing Tuesday evening, July 17, 1877, President Park in the chair.

The exercises were opened with music—a piano solo—by Miss Schuette.

Mr. L. B. Sale, on behalf of the mayor and citizens of Green Bay, welcomed the members of the Association to the city.

President Park, on behalf of the members of the Association, returned thanks for the welcome extended, and invited the citizens of Green Bay to attend the meetings of the Association.

The Misses Le Clair sang the trio—"Those Distant Chimes." An *encore* called them again to the front and a second selection was rendered.

President Park introduced to the Association Rev. H. M. Simmons, of Kenosha, who delivered a lecture on "Man's Place in the Universe."

Mr. Briggs, of Green Bay, in behalf of Messrs. Elmore and Kelly, invited the members of the Association to participate in a steamboat excursion up the Bay, on the afternoon of the 18th, on which occasion the propeller Canisteo would be placed at the service of the Association.

It was voted to accept the invitation, and to request President Park to convey to the gentlemen making the offer the acknowledgments of the Association.

Messrs. Earthman, Miller and Thomas were appointed a committee on enrollment.

In the absence of the treasurer, Mr. Salisbury was appointed treasurer *pro tem*.

Association adjourned until 9 A. M. July 18.

TUESDAY, July 18, 9 A. M.

Association called to order by President Park, and the exercises opened with the singing of "America" by the association, led by a chorus from the Green Bay High School, followed by prayer by the Rev. Mr. Brown, of Green Bay, and the hymn, "Hold the Fort."

The annual address of the President was then read.

The following named gentlemen were appointed a committee on Distribution of President's Address: W. D. Parker, E. B. Wood and J. T. Lunn.

A recess of ten minutes was then taken, for the purpose of making an enrollment of the members.

The president announced the following committees:

Finance — C. F. Viebahn, J. P. Brainerd, S. F. Beede.

Resolutions — W. C. Whitford, S. S. Rockwood, Miss M. Hosford.

Mr. Salisbury read a paper on the History of the Wisconsin Teachers' Association.

Miss Hattie Clark, of the La Crosse High School, read a paper on "Daily Preparation of the Teacher."

The committee on Distribution of President's address then presented the following report:

Your committee to whom was referred the President's address for distribution of topics, have had the address under consideration and respectfully report as follows:

The topic, *Principals' Association*, to be referred to A. J. Hutton, C. F. Viebahn, W. H. Beach.

Supervision, to W. H. Chandler, Agnes Hosford, H. M. Simmons.

Teachers' Institutes, to Robert Graham, Hosea Barnes, F. W. Isham.

Exhibitory Department, to O. S. Wescott, Sarah Stewart, W. A. Kellerman.

Music, to L. W. Briggs, Hattie Clark, P. R. Barnes.

Drawing, to D. McGregor, Ellen C. Jones, Samuel Beede.

Text-Books, to A. Earthman, Alex. Kerr, G. S. Albee.

W. D. PARKER,

E. B. WOOD,

J. T. LUNN,

Committee.

A. A. Miller, of Waukesha, read a paper on "Promotions in Graded Schools."

Association adjourned until 8 P. M.

TUESDAY EVENING, July 18.

Association called to order at 8 o'clock, by President Park.

Robert Graham read the report of the committee on "Course of Study for Mixed Schools," as follows:

The committee to whom was referred the subject of Course of Study for Mixed Schools, ask leave to report as follows:

1. That the most precious thing on earth is the child.
2. That this child will become a good or bad citizen, and that the quality will largely depend on his education.
3. That the education of this child by the state is only justifiable on the ground of state preservation.
4. Whatever will make this child a better citizen should be a matter of solicitude on the part of the state.
5. The common district schools furnish the education of probably nineteen-twentieths of the citizens of this commonwealth.
6. The state superintendent, county superintendents, principals of normal schools, institute conductors and school boards are directly responsible for the condition of the above named schools.
7. Children do not attend the common schools for an average period of more than six years, of five months each year — thirty months of school education; one and one-fourth years.
8. What then is to be done for these children ought to be carefully and definitely mapped out.
9. No teacher should be engaged in one of said schools, who is not thoroughly conversant with the plan and object of said work.
10. Paragraphs 7 and 8 point directly to a course of study definitely outlined, which each of the factors directly concerned, named in paragraph 6, should have a voice in determining.
11. It will not be considered of avail to all or either of the parties named in paragraph 6, that they have individually or collectively found fault with existing evils in the common schools, it being their duty either to remedy such evils or vacate their positions, as determined by civil service reform.
12. Because this committee has not proposed a *proper* course of study, is by

no means owing to the fact that they have not distinct thought upon the subject, but because it would be considered, and justly so, a usurpation of the prerogatives inhering to the parties mentioned in paragraph 6.

Therefore your committee recommend that this subject be recommitted to a committee representing the parties named in paragraph 6 with the state superintendent as chairman, who shall prepare a report, to be presented at the December meeting; hoping thereby to secure a report looking to an effective reorganization of the common school work, supplemented by such legislation as may be necessary.

In behalf of the committee,

ROBERT GRAHAM,
Chairman.

On motion of W. D. Parker, it was voted to adopt the recommendations of the report.

The audience listened to a solo — "The Day is Done" — by Miss Ruth Ellis.

An *encore* brought the lady again to the rostrum.

Dr. Walter Kempster, superintendent of the Hospital for the Insane at Oshkosh, delivered a lecture on "Mental Discipline."

Association adjourned to 9 A. M. July 19.

WEDNESDAY MORNING, July 19, 1877.

Association called to order by Pres. Park.

Exercises opened by singing "God Speed the Right," led by a choir from the Green Bay High School, followed by prayer by Rev. Dr. Henschel, and the hymn "Only an Armor Bearer."

Pres. Phelps offered the following resolutions which were adopted:

WHEREAS, The National Bureau of Education has become an invaluable and indispensable agency for the collection and dissemination of information touching every department of the school work of our country as well as of all other civilized nations;

WHEREAS, The progress of Education among us preëminently depends upon the diffusion of such information, as the fruits of the ripest experience of the race in this direction; therefore,

Resolved, That we believe it to be the duty of the national government in every rightful way to afford the Bureau that material and moral support so essential to the performance of its important functions.

Resolved, That a certified copy of this preamble and resolutions be transmitted to the Senators and Representatives in Congress from this state at its ensuing session, signed by the President and Secretary of this Association.

Mr. MacAlister made the following statements regarding the

family of Mr. Pomeroy, formerly superintendent of schools in Milwaukee, now deceased:

Mrs. Pomeroy had maintained herself and family by teaching until now failing eyesight and health rendered it impossible for her longer to continue in the work. She was known to many as the writer of a number of beautiful poems, and at the suggestion of friends, had gathered up these efforts of past years, and had now in press a volume containing them. It was proposed to place this work on the market at \$2 per volume, and it was hoped that members of the Association would avail themselves of the opportunity which would be offered them of showing their appreciation of one so long identified with the educational interests of the state, and of aiding a worthy woman, while at the same time they would secure for themselves a valuable book.

Miss Stewart, of Milwaukee, Miss Agnes Hosford, of Eau Claire, and A. J. Cheney, were appointed a committee to solicit subscriptions.

Miss Ellen C. Jones, of Sheboygan, read a paper on "The Relation of Teacher and Parent."

A recess of five minutes was then taken.

Mr. Hailman addressed the Association on the subject of "Kindergarten Culture." He did not propose Kindergarten culture as a panacea for all educational ills. It is the first step in the culture necessary for living. The first step in complete living is complete living. It is necessary at all times to train children in complete living.

Kindergarten culture is called for in our educational system. The first experiment, in connection with public schools, which has been successful in the west, has been at St. Louis. Within three years from the establishment of the first one at St. Louis there were nearly thirty in operation there.

One danger in the way is too rapid growth. There are two sides to the work, the outside and inside; one is mechanical; the other has for its object the development of the capacities and individual propensities of the child. No great amount of ability required to teach the "outside part." Ability of a high order necessary in the individual taking charge of the "inside" work. A girl of fourteen or sixteen years has not the requisite experience and breadth of thought to fit her for this work. In St. Louis only the very best

teachers are employed. They are better paid than teachers in the primary schools.

Kindergartens interest parents in the work done. They teach complete living, not by theory but practically. True teaching shows itself in the association of the children with their parents and with other children; it shows itself in the life of the child. Bad teaching shows itself likewise. Individuality begets individuality. When the machine tendency of the schools is grafted on the kindergarten, the kindergarten will be a failure.

* Many favor the teaching of the three R's only; say "we must secure a taste for reading;" but how are we to secure a taste for reading those things which the child does not understand?

Much work in school is done by the child simply because it *must* be done, and of which it does not know the value. The kindergarten may provide a way which will guard us against these dangers.

In kindergarten work, everything that is done is adapted to the capacities of the children; in higher schools it is not done.

Conservatism on the part of the people is the principal difficulty in establishing kindergartens. They will doubtless cost a trifle more than primary schools. In St. Louis, where the conditions have been remarkably favorable, the cost is less, being from \$10 to \$12 per child annually.

Kindergarten training is the first step in mind training, and therefore ought to be taken up by the public schools. Many think that poor teachers will do for primary pupils. The kindergarten will help to destroy this feeling.

An opportunity was given for discussion of papers read during the forenoon.

Pres. Phelps thought that the early stages in educational work were the most important, and that therefore there was the greatest necessity for good work in primary instruction. Children are often injured in their early years. Character is formed very largely in children before they reach the age of eight or ten.

Expressed himself as favoring the adoption of kindergarten training in the public schools of the state, and thought it would be well to have a kindergarten connected with one of the Normal schools.

Mr. Mac Alister expressed his belief that there is no part of our educational work of more importance than the formation of kinder

gartens. Normal schools should take up the matter. The trouble in the establishment of kindergartens in Milwaukee is more often with the teacher than with the people. Is it not possible to put the best things in the kindergartens into the primary schools?

Mr. Searing favored the system as a part of our state system of education. Wished that it might soon be tried in at least one of our Normal schools.

Mr. Chandler stated that it is a question as to whether the Normal Regents, have the legal authority to establish these kindergartens in connection with the Normal schools. When a large number of the leading educators of the state demand these kindergartens the way will be made clear for their incorporation into the Normal schools.

On motion it was voted to continue the discussion of kindergarten culture at 2:30, p. m.

Pres. Phelps introduced the following resolution, which was adopted:

Resolved, That in making up the programmes for the future annual meetings of this association, the president and executive committee be and they are hereby instructed to provide for the presentation of papers, the reading of which shall not exceed one hour in duration, and that ample provision be made for the discussion of said papers and lectures immediately subsequent to their presentation or delivery.

Resolved, That in making engagements with the authors of papers and lectures it shall be the duty of the officers aforesaid to communicate to them the purport of the foregoing resolution.

The report of the committee on nominations was then called for, but the report was not ready.

Moved and carried that the Association proceed to an informal ballot for president.

Pres. W. C. Whitford nominated Mr. Albert Salisbury, of White-water, and Mr. A. J. Hutton nominated James MacAlister, of Milwaukee.

The Association then proceeded to an informal ballot which resulted in 71 votes for James MacAlister, 28 for Albert Salisbury, and 1 scattering.

On motion of Pres. Whitford, it was voted to proceed to a formal ballot for President and that the Secretary be instructed to cast the ballot of the association for James MacAlister. The ballot was

cast as directed and James MacAlister was declared elected president of the Wisconsin Teachers' Association for the ensuing year.

The committee on nominations then presented the following report:

Your committee, appointed to nominate officers for the ensuing year, respectfully submit the following report:

For Vice-Presidents—W. H. Chandler, Sun Prairie; Miss Agnes Hosford, Eau Claire; I. N. Stewart, Berlin.

For Secretary—A. Earthman, River Falls.

For Treasurer—J. T. Lunn, Ironton.

For Executive Committee—M. T. Park, Chairman, Oshkosh; A. Salisbury, Whitewater; Alex. Kerr, Madison; D. H. Flett, Kenosha; W. H. Beach, Beloit.

J. Q. EMERY,
T. P. MARYATT,
T. F. FRAWLEY,
Miss E. E. KELLEY,
Miss I. M. GORDON,
Committee.

On motion, it was voted to proceed to formal ballot for the remaining officers of the Association, and that the Secretary be instructed to cast the ballot of the Association for the persons nominated for the respective offices by the committee on nominations. The ballot was so cast and the persons declared elected as reported by the committee.

Association adjourned until 2:30 P. M.

THURSDAY AFTERNOON, July 19.

Association called to order at 2:45 P. M. Pres. Park in the chair.

In accordance with the recommendation of the committee on "Course of Study for mixed Schools" the president announced the following committee to report at the December meeting:

Hon. E. Searing, G. S. Albee, W. H. Chandler, D. McGregor and J. T. Lunn.

Miss Agnes Hosford, of Eau Claire, read a paper, subject: "A Woman's Experience as Superintendent of Schools."

The report of the committee on "The Education Needed for the Citizen" was then read by G. S. Albee.

The report was accepted.

After a recess of ten minutes the discussion of the subject of "Kindergarten Culture" was again taken up.

Mr. Hailman opened the discussion in answer to some questions asked during the discussion in the forenoon. The speaker stated that the best results were not yet reached in Milwaukee. Too many children in charge of one teacher, one cause of failure. Two English Kindergartens have been established in Milwaukee. Measures are being taken to put them on a more permanent basis, with better accommodations. Some of the teachers in the public schools of Milwaukee are taking advantage of the instruction given in the training school for kindergarteners, established by Mr. Hailman.

Superintendent Harris, of St. Louis, states that in the primary grade 25 per cent. less time is needed to finish the work by those who have had kindergarten training than by those who have not. Similar reports from Belleville, Ill., Indianapolis and other places. In addition to the time saved, there is an increase in accuracy and clearness of thought and expression. It is the practice to introduce children into the kindergarten at from three to four years of age.

In answer to the question by Superintendent Searing, Mr. Hailman stated that the kindergartens established in St. Louis are not aristocratic affairs. They are public affairs connected with the public schools and taught in public school-rooms. The extremes of society, the very poor and the very rich, pay but little attention to kindergartens.

Mr. Mac Alister asked whether these extremes of society do not need the training of the kindergarten more than the other classes. Does not the kindergarten take the children too much out of the parents' influence? Should not the parent be retained as a factor in the state?

Mr. Hailman stated that the kindergarten does not take children more than three hours a day; it does not usurp the functions of the parent, but does what the parents can not do. It brings the children into connection with other children.

President Phelps thought that the training of the kindergarten would enable the child to so utilize his forces that he can, when at home, make the best use of his opportunities. The influence of the teacher acts not only on the children, but through them on the parents, and on the community.

President Albee said that parents are led to attend the kindergartens with their children. They see something there which they can understand, and they carry back to their homes something which will be of value. The association of children in the kindergarten supplies a want for society, and prevents the evil results that often follow the unknown associations formed by children, when from their own homes. We should prepare ourselves to understand this question, and to discuss it wisely.

Mr. Lunn doubted the practicability of establishing kindergartens in the country. The population is scattered. Asked whether it was done in Germany under similar conditions. Mr. Hailman replied that the conditions in Germany were not such as to make it a fair standard for us. In Austria, five or six families unite to make kindergartens for themselves, employing a teacher, or delegating the work to one of the mothers, each relieving the others.

After some further discussion, it was moved and carried that a committee of three be appointed to report at the winter meeting on the subject of Kindergarten Culture.

Association adjourned.

THURSDAY EVENING, July 19.

Exercises of the evening opened with a solo, "The Maid of Dundee," by Mr. North. In response to an imperative *encore*, another selection was rendered.

The report of the committee on Principals' Association was read by Mr. Hutton, as follows and accepted:

Your committee on Principals' Association respectfully report as follows:

There are now before the friends of education many questions of exceeding importance, relating to the true function of the higher departments of our graded schools. These questions are pressing upon our attention, and demanding our most earnest thought.

So long as these questions remain unsettled there is a place and a work for the principals' association, and this organization, recently revived, deserves our heartiest support.

A. J. HUTTON,
C. F. VIEBAHN,
W. H. BEACH,

Committee.

The report of the committee on Music in Public Schools was then read, as follows, by L. W. Briggs, chairman, and accepted: ●

It is only a few years ago that to teach music in a public school would have been as much of an innovation as the introduction of the study of Physiology.

Now, thanks to our State Normal Schools, elementary music finds a place in the daily programme of school exercises, not only in the High School, but down through all the grades to the Primary; not only in a city school, but out through all the country schools, so that from the little school houses that dot our broad prairies and nestle in our forests, there goes up each morning and evening a grand chorus, sung not only with the heart, but also with the understanding.

Of the direct advantages of this systematic drill in music we have no need to speak. Indirectly, this drill teaches a school to do things on time and in time; it is a rest for the brain, and a wholesome activity for the body; it is a means of culture and refinement; it does more to fit boys and girls for a reasonable enjoyment of social life, than does the whole range of mathematics.

Therefore, in the opinion of your committee, music ought to be taught as systematically, as intelligently, and as earnestly as any of the so called common branches.

L. W. BRIGGS,
H. E. CLARK,
P. R. BARNES.

Committee.

The committee on "Drawing" requested further time to prepare their report, which was granted.

The committee on "State Tax" also requested further time to prepare their report, which was granted.

The report of committee on "Teachers' Institutes," was made by Robert Graham, chairman. It was voted that the further consideration of this report be deferred until the winter session. The report was as follows:

The objects of Teachers' Institutes seem to be—

I. (a) To show, by the aid of qualified teachers, what experience proves to be most useful in recitation.

(b) To show the beginners what ought to be taught.

II. (a) To present the best methods for conducting recitations.

(b) To present proper guides for general school management.

(c) To stimulate teachers to a better preparation for their work, and laudable efforts to excel therein.

As a means to the ends here named, so much of matter in the elementary branches of study as shall keep the Institute steady and busy out of the hours of session, should be assigned for special preparation.

We are convinced that no other expenditure by the state produces results so quickly, so far reaching, and so permanent for good as that devoted to institutes; that these institutes furnish the only means of reaching the great

body of teachers; and that they are direct feeders to the normal schools, and effective stimulants to more extended culture.

Hence, we fully believe in, and heartily recommend, a thorough prosecution of the work, adding to rather than subtracting from its present efficiency.

R. GRAHAM,
H. BARNES,
FRED. W. ISHAM,
Committee.

The report of Committee on Uniformity of Text-Books, was read by Mr. Earthman. as follows:

Your committee to whom was referred that portion of the President's address which relates to text-books, beg leave to report:

In view of the fact that the attention of the people of this state has been called to matters pertaining to the purchase and manufacture of text-books, and that a general desire has been expressed by educational men throughout the state to have this Association put itself on record as approving or disapproving the policy of securing a state uniformity of text-books by having such books published by the state, or by parties within the state, acting under state authority; we, the teachers of the state of Wisconsin, in convention assembled, do hereby declare it our firm conviction:

1. That a state uniformity of text-books is undesirable, and calculated to work harm to a majority of our best schools.

2. That we consider present legislation sufficient to insure to every school district in the state the best text books published, at reasonable rates; and that we recommend to district officers throughout the state that they avail themselves, to the fullest extent, of the law relating to the purchase of text-books by and in the name of the school district.

3. That we hereby express our approbation of State Superintendent Searing's endeavors to prevent the proposed legislation on the text book question during the last session of the legislature.

Respectfully submitted,

A. EARTHMAN,
ALEX. KERR,
G. S. ALBEE,
Committee.

After some discussion, in which the third article of the report was strongly endorsed by leading members of the Association, the report was adopted.

On motion of Mr. Phelps, it was voted that in case of any attempt at text-book legislation at the next session of the legislature, these resolutions be transmitted to that body in a communication signed by the president and secretary of the Association.

The Association was entertained with music furnished by the French cornet band of the place.

Report of committee on Finance was then read and adopted, as follows:

Your committee on Finance respectfully report that they have examined the treasurer's account with accompanying vouchers, and find the same correct.

It was found that the receipts during the year were.....	\$196 25
The expenditures.....	78 83
Leaving a balance on hand of.....	\$117 42

C. F. VIEBAHN,

S. F. BEEDE,

Committee.

The report of committee on "Resolutions" was then read by Mr. Rockwood, as follows, and adopted:

WHEREAS, The present meeting of the Association has been from first to last, especially pleasurable and profitable, and has been given this character by the courtesies and labors of many different parties, we desire to express our acknowledgments and appreciation of the same in some manner not altogether insufficient, therefore

Resolved, That we tender the Hon. Mayor and President of the School Board of the city of Green Bay, C. E. Crane, M. D., our sincere thanks for his hearty sympathy and staunch support in all matters pertaining to our comfort, pleasure and profit while here.

Resolved, That we extend to the Hon., the School Board of the city, our manifold thanks for the generous provision made for our meeting in this beautiful and entirely comfortable hall.

Resolved, That we thus publicly acknowledge our great obligation to Superintendent J. D. Williams and Principal L. W. Briggs, for their untiring zeal in our behalf before and since our arrival, and bespeak for them many happy years of successful labor in the great educational fields.

Resolved, That the young ladies of the High School and the Misses Le-Claire and Schuette are entitled to a full share in this distribution of acknowledgments, for the charming and artistic music they have so lavishly furnished, under the leadership of their Principal, and also that Miss Ellis and Mr. Geo. L. North for their fine solos, and the Cornet Band for their unexpected addition to the pleasure of the evening, are alike heartily remembered.

Resolved, That we are especially obligated to the Hons. D. M. Kelly and A. E. Elmore for the exceedingly generous gift of a half-days's use of the beautiful and commodious propeller *Canisteo*, for an excursion down the Bay, which we all declared to have been one of the most delightful and wholly satisfactory pleasure trips in the annals of the Association.

Resolved, That we hereby acknowledge the great pleasure and profit received from the lectures of the Rev. H. M. Simmons, of Kenosha, and Dr.

Walter Kempster, Superintendent of the Northern Hospital for the Insane, at Oshkosh, and proffer to them our profound gratitude.

Resolved, That we return to the Green Bay Advocate, the State Gazette, and the Globe, our warmest thanks for their generous reports of the sessions, and to the press of the state generally, our appreciation of their gratuitous advertising and notices.

Resolved, That, in view of the time and the tides in our affairs, we are peculiarly grateful to the following railroad companies for their old time favor of reduced fares, viz.: the Sheboygan and Fond du Lac, Wisconsin Valley, Green Bay and Minnesota, Western Union, West Wisconsin, Milwaukee, Lake Shore and Western, Chicago and Northwestern, Mineral Point, and Wisconsin Central; and, finally,

Resolved, That we are under many obligations to the entire body of officers of this Association for their energy, courtesy and efficient management of our interests. May they live long and prosper.

All of which is respectfully submitted.

W. C. WHITFORD,
MARGARET HOSFORD,
S. S. ROCKWOOD,

Committee.

Moved and carried that a committee of three be appointed to attend to the matter of publishing the History of the Association. Messrs. Earthman, Pradt and Hutton were appointed such committee.

The President announced as committee on Kindergarten Culture, to report at winter meeting, Pres. Phelps, Supt. MacAlister and Pres. Albee.

Senator Howe was present and made some remarks to the members of the Association.

After music by the band, the Association adjourned *sine die*.

L. D. HARVEY, *Secretary*.

M. T. PARK, *President*.

PRINCIPALS' MEETING.

The convention of City Superintendents and Principals of High Schools, met in the Senate Chamber at 4 p. m., December 28. Convention called to order by Superintendent Shaw, of Madison, when E. B. Wood, of Oshkosh, was called to the chair, and E. R. Smith, of Burlington, chosen secretary.

Superintendent Shaw then stated the causes that made such an organization desirable; the principal being, that subjects of paramount interest to high school men could not receive sufficient attention in the general association. He suggested that the "Relation of the High School to the University" be discussed, and called upon Professor Kerr to give his views.

Professor Kerr gave the requirements for admission to the University, and a few suggestions as to what the high schools should attempt. Should be glad to see the preparatory department abolished. Considers Greek the great obstacle in the way of preparation at the high schools. Greek is taught in Madison, La Crosse and Sparta by extra teachers at slight expense. Recommends the formation of literary clubs in towns and villages, for the purpose of reading "Bryant's Iliad" and similar works, to cultivate a taste for classical learning. Would much prefer that graded and high schools should do the preparatory work. Would be willing to allow credit for equivalent studies in which applicants are well prepared. All students coming to the University will meet with every encouragement, but no young man will be advised to attempt impossibilities.

Pres. Bascom next took the floor. He desires to dispense with the Preparatory Department on account of the High Schools themselves. Also for the benefit of the student. The discipline and drill of the High School quite necessary. Such discipline and drill not obtainable at the university. Preparatory students require such drill. University students do not.

I. N. Stewart, of Grand Rapids, is of the opinion that the High Schools should teach German, Latin and Greek.

Prof. Carpenter takes the ground that Greek should not be required for admission to the University. Would begin Greek in first year of the course. High School boards would not be warranted in using funds to teach Greek to the one or the two pupils who may desire it. The High School makes excellent preparation in German and Latin. Prof. C. gave many reasons why *all* the preparatory work should be done by High Schools. To secure this, the University course ought to be sufficiently modified to allow it.

J. Q. Emery, of Ft. Atkinson, does not believe that the High Schools can do the required work in Greek. It would detract from

the legitimate work nor would the people pay for it. They feel that they can not afford to.

Pres. Bascom does not think it desirable to begin Greek in the first University year. If not begun until then it must continue through the four years to the exclusion of other important studies. If Greek be not required, it would soon be dropped from all High Schools, much to their detriment. He believes that the High Schools should foster the taste and love for Greek.

Prof. Maryatt, of Kenosha, states that Greek has been dropped from their course, but that in mathematics and the sciences they give two years more than required for admission, and he considers it a hardship that their students cannot receive full credit for such preparation.

O. R. Smith, of Sparta, believes that where good high schools exist, a little tact on the part of the teacher will create a taste for Latin and Greek. He began by giving recitations in Latin and Greek after school and evenings, but soon had no difficulty in putting such classes in the regular programme. Such classes have an influence for good in the school. Latin and Greek in his school have raised the standard of the whole school. To throw out Greek would not benefit the high school. If high schools do not teach Greek, private schools will.

Prof. Carpenter considers German just as useful as Greek, both for discipline and literary culture. It introduces the student to the broad parallel current of German literature.

Supt. Searing makes a strong plea for the Greek. The Greek and Latin far superior to the German. The difference is great but indefinable. When he reads Greek, he is a Grecian; when he reads Latin, he is a Roman. German produces no such effect upon him. Many high schools in Michigan, among the best in America, prepare in Greek, and our high schools might and should do the same.

Prof. Wood, heartily agrees with the idea that the study of Greek is beneficial.

O. R. Smith, suggests that teachers can do missionary work in this direction.

Supt. Shaw advocated a permanent organization, and on motion the following were appointed a committee to report a plan of organization at 7 o'clock, p. m.; viz: S. Shaw, O. R. Smith, B. M. Reynolds.

On motion, a committee on the Relation of the High School to the University, was appointed, consisting of Messrs. Maryatt, Beach and Junor, to report at 7 p. m.

Adjourned.

Convention re-assembled at 7 p. m., and Supt. Shaw reported a constitution which was read, and on motion adopted.

Committee on "Relation of High Schools to the University," submitted their report, the wording of which called out remarks from E. R. Smith, D. Kinney, of Darlington, J. Q. Emery, Supt. Shaw, and Prof. Kerr, and after a few changes, it was unanimously adopted, as follows:

Your committee, to whom was referred the question of the Relation of the High School to the University, beg leave to report:

That, in their opinion, there should be such a close connection between the different parts of our educational system, that pupils could advance directly from the common to the high school, and from the latter to the university. We would recommend that a three years course in Latin, and a two years course in Greek, with the other subjects rendered necessary by such addition, be a part of the regular work in all high schools.

T. P. MARYATT,
W. H. BEACH,
D. JUNOR,

Committee.

Proceeded to the election of officers with the following result:

O. R. SMITH, of Sparta, *President.*

E. B. WOOD, of Oshkosh, *Vice President.*

D. JUNOR, of Berlin, *Secretary.*

SAML. SHAW, of Madison, *Treasurer.*

O. R. Smith read the draft of a constitution, which, on motion, was substituted for one previously adopted. On motion, the Secretary was instructed to cast the ballot of the Association for the remaining members of the Executive Committee, as follows: W. H. Beach, Beloit; J. Q. Emery, Fort Atkinson; and I. N. Stewart, Grand Rapids. Those present signed the constitution and paid the membership fee.

The Secretary was instructed to purchase a suitable record book for the Association.

On motion, adjourned.

E. BARTON WOOD, *President.*
E. R. SMITH, *Secretary.*

CONVENTION OF SCHOOL SUPERINTENDENTS.

The annual convention of County and City Superintendents was opened in Senate Chamber, at Madison, December 27, 1876, at 2:30 p. m.

State Supt. Searing took the chair, and Supt. Fred. W. Isham was chosen secretary.

Roll call showed the following named superintendents to be in attendance:

COUNTY SUPERINTENDENTS.

W. B. Minaghan, Calumet.	D. H. Fleet, Kenosha.
Kennedy Scott, Columbia.	S. M. Leete, La Crosse.
A. R. Ames, Dane, 1st dist.	W. A. Walker, Manitowoc.
M. S. Frawley, Dane, 2d dist.	Maggie Comstock, Oconto.
J. T. Flavin, Dodge, 1st dist.	J. W. West, Rock, 1st dist.
A. K. Delaney, Dodge, 2d dist.	J. B. Tracy, Rock, 2d dist.
W. L. O'Connor, Fond du Lac.	J. T. Lunn, Sauk.
G. M. Guernsey, Grant.	F. W. Isham, Walworth.
T. C. Richmond, Green.	John Howitt, Waukesha.
A. Watkins, Iowa.	W. T. Williams, Waushara.
C. J. Collier, Jefferson.	

CITY SUPERINTENDENTS.

J. MacAlister, Milwaukee.	Sam'l Shaw, Madison.
R. W. Burton, Janesville.	Geo. Skewes, Racine.

The first topic brought forward for consideration, was that of "Needed Reforms in County Supervision."

State Supt. Searing was anxious to get the opinion of a considerable number of the superintendents upon several points connected with the subject,—particularly in regard to the time of election, and uniformity of teachers' examinations.

Nearly every superintendent presented his views on the subject, the preponderance of opinion being in favor of changing the time of election to the spring, and the beginning of the term to September. It was believed by a majority that the official term would thereby correspond more fully with other educational work; giving the incoming superintendent the management of the fall examinations, and supervision over two full winter terms, instead of one whole term and two fractional terms. While many believed that

the change would not take the office out of politics to any great extent, it was strongly argued that better men would seek the office, as the risk of losing other opportunities for school-work by becoming a candidate for county superintendent, would not be as great, in the spring, as it would in the fall. Individual opinions have not been recorded in this portion of the minutes from the fact that they coincided largely one with another, and the range of thought was not very extensive.

Adjourned to Thursday, Dec. 28th, 2:30 P. M.

THURSDAY AFTERNOON.

After some discussion in regard to the great need of more uniformity in the work, in the course of study, &c., the subject of "More Accurate Statistical Reports from School Officers," was taken up.

Supt. Searing. The blanks sent to district clerks and county superintendents should be simpler, clearer and better printed. Teachers should be provided with uniform blanks by the state department, on which to report to the county superintendent, many items now reported by the district clerks. Many items now reported are unnecessary. It is my intention to issue a new set of blanks upon a new plan; also to furnish county superintendents with blank record books, duplicates of which may be forwarded to the state superintendent.

Supt. Shaw. There is a lamentable deficiency in the accuracy of the present statistical reports. They should be simplified. Many items which are of no importance, not worth the trouble to get and publish from the state superintendent's office, cumber the report. Very often clerks compile the report after the teacher has left and are obliged to make some omissions, &c.

Supt. Walker. The report in regard to text-books used is not reliable. The same may be said in regard to such matters as ventilation, and valuation of school property.

Supt. Delaney was thoroughly convinced that the most unsatisfactory and unreliable feature of the report is the financial statement.

Supt. Flett. Superintendents are obliged to stretch their consciences or leave the report incomplete. Many items should be collected during the year by the superintendent himself. He has

organized a County District Officers' Association, to discuss subjects connected with school law, school records, wages, text-books, &c.

Supt. Scott. The teacher should be required by law to finish her register, and leave the record in a shape that will be intelligible to the district clerk.

Supt. Chandler made some remarks, explaining the excellent system of reports in use in the Sun Prairie school district.

Supt. Williams moved that the subject be referred to a committee of three, consisting of the State Superintendent, one City Superintendent and one County Superintendent. The motion was carried, and Supts. Shaw and Minaghau were appointed to act with the State Superintendent upon said committee.

The report of the committee upon "More Effective and Permanent Supervision," was presented by Supt. Watkins, and was as follows:

Your committee having had the subject referred to them under consideration, would respectfully report, that while fully conscious of the need of better results of supervision, the difficulties in the way of its accomplishment, without many radical changes in the present system, are very numerous and very great. Some of the deficiencies complained of are undoubtedly attributable to inefficient administration; but more are justly attributable to the large amount and varied character of the duties imposed upon the County Superintendent, to be discharged in accordance with arbitrary provisions of law. No discretion is allowed to superintendents, in qualifying teachers, to discriminate in favor of experienced and successful teachers; and no authority is vested in them to prescribe courses of study, or methods of development. No power to enforce attendance upon institutes or associations is possessed.

In regard to the matter of changing the time of election to the Spring and the time of commencing the term of office to September 1st, your committee are of the opinion that while it is apparent that some advantages would result, they are not sufficient to warrant an effort to secure the change by legislation; especially in view of the fact that the sentiment of prominent schoolmen seems to be steadily tending in the direction of making strong efforts to secure a State school tax, and a uniform township system, both of which propositions meet our cordial approval, and, in our judgment, would greatly facilitate and simplify the work of county superintendents, and are imperatively demanded in order to secure more intelligent, constant and efficient co-operation by local authorities.

Your committee are further of the opinion that such change in the law as would provide for the election of county superintendents by the town boards created under a township system, and their recognition as state officers, paid

from the state treasury, would also very greatly promote needed reforms in supervision.

W. H. CHANDLER,
ALBERT WATKINS,
Committee.

This report was followed by a minority report, presented by ex-superintendent Chipman, denouncing the township system as it now stands upon the statute books and opposing any change in the election of county superintendents.

Moved and carried that the part of the report which refers to the State School Tax be adopted.

Moved and carried that the portion of the report relating to a Township System be adopted.

Moved and carried that the subject of "A Course of Study for District Schools," be referred to a committee of three. The committee, appointed by the chair, consisted of Superintendents O'Connor, Lunn and Walker.

Moved and carried that an executive committee, to act in conjunction with the State Superintendent in all matters pertaining to the convention, be appointed. The committee, appointed by the chair, consisted of Superintendents Delaney, Collier and Tracy.

Convention adjourned, *sine die*.

FRED. W. ISHAM, *Secretary*.

REPORTS OF
CHARITABLE AND REFORMATORY INSTITUTIONS.

WISCONSIN INDUSTRIAL SCHOOL FOR BOYS, AT WAUKESHA.

[From the Managers' Report.]

We have a greater number of inmates than we ever had before. The increase during the past year has been greater than in any other year of our history. This has rendered the employment of additional help necessary, and increased the cost of subsistence. Notwithstanding the addition to our number of between forty and fifty above the preceding year, the current expenses of the institution have been reduced about \$1,800. This will be regarded as substantial evidence of economical management. We believe the school was never in better condition than at present. It has met and promises to continue to meet the expectation of its intelligent and judicious friends. It is now about twenty years since the law establishing this institution was enacted. Those who were sent here in the outset, and still survive, have long since entered into active life with such preparation as they were able to secure here, and together with those who have left the school later, numbering in all more than a thousand, are living testimonials of the generosity and wisdom of the state. A large proportion have done well, and are repaying to the state in the capacity of industrious and orderly citizens, the cost of their education and reformation here. Every county has its jail where criminals are imprisoned before trial and after conviction for crime.

The state has its prison where crime is punished. The object in jail and prison is to render the punishment so severe as to deter the criminal from a repetition of his crime and consequent return to the place of punishment. The objects sought to be attained

here are somewhat different. We design to suppress vice and to prevent the commission of crime. Prevention is better than punishment. This is not a penal institution in any just sense. It is as its name indicates, and the legislature and managers intended it to be, an industrial school. Many of our boys are the children of ignorant and vicious parents who regard the law, its makers and administrators with feelings of hostility, and they cultivate similar feelings in their offspring. It is the work of this school to correct this miseducation of the neglected and destitute boys sent here for reformation. In order to accomplish this successfully, the school must not be, and must not be regarded, as a prison; and while it may not be policy to render it so much more attractive than the homes our boys have left as to encourage parents to induce their sons to commit crimes in order to gain admission here, yet it is necessary as well as humane to indulge a decent regard for the comfort of the boys brought under our control.

The subject of the proper treatment of these boys is surrounded with difficulty. They are not confirmed or hardened criminals who should be made to suffer the hardships, discomforts or humiliations of prison life, and afterwards turned loose again upon society with their old prejudices against law and order hardened into convictions. But they should rather find the Industrial School a place of cheerful industry, where they can acquire such an education as will qualify them for the transaction of ordinary business, and such habits and principles as will fit them for useful members of society. * *

The duties of all connected with the school have, in our judgment, been faithfully performed. The progress made in the educational department can be estimated somewhat from the teachers' report, and entitles all engaged there to favorable mention.

[From the Superintendent's Report.]

It will be seen by referring to table No. 1, that we commenced the year with 318 boys and closed with 364; showing an increase of 46, an *increase* much larger than can well be accommodated in either one of our family buildings, and the whole number at this date is quite as large as can *well* be accommodated when the spacious building now in the process of erection shall be completed. Should the ratio of increase for the present year only equal that of the past, we shall find ourselves with an additional full-sized family

of boys to be lodged in our already crowded dormitories, which cannot be done without great detriment to health and comfort. * *

No change in our rules, and but few changes in the corps of assistants have been made since my connection with the school, but a very satisfactory improvement in the deportment of the pupils is shown by our records. A grade book in which is recorded the irregularities of each boy is kept and posted at the close of each half month, and each boy rises or falls in his grade in accordance with this record. The grades range from first to fifth inclusive; the fifth being the lowest and the first the highest, unless a boy shall continue in it for two successive months; then he is promoted to the grade of honor, where he remains unless his own acts reduce him to some one of the inferior grades, where he may, by good conduct, promote himself again to the highest rank. When I assumed the duties of superintendent, on the 15th of January last, this book shows, that of the 340 boys then here, 97 were in the grade of honor, and 22 were in the fifth or lowest grade; and the same record shows that on the date hereof, 199 of the same boys have reached the grade of honor, while only 4 remain in the lowest grade. And of the 107 committed since the 15th of January to this date, 19 have reached the grade of honor, 60 the first grade, 15 the second, 9 the third, and only 4 remain in the fourth grade, where all new comers are entered, and none have fallen below the starting point; and only one boy has escaped since my present connection with the school. These figures point with emphasis to the fact that my collaborators as well as the inmates have generally been assiduous in their efforts to improve the normal standing of our little community.

The older portion of the boys are usually required to work five hours, and to go to school four hours each day, and are allowed two intermissions of one-half hour each; and the smaller boys are required to attend school the same length of time, but are only required to work four hours, which gives them two intermissions of one hour each. These daily intermissions, together with the last half of each Saturday afternoon, give the boys quite as much time for play as can be made beneficial to them.

TABLE showing the number of inmates received and discharged during the year:

Number in school October 1, 1876.....	318
Number committed during the year.....	134
Number re committed during the year.....	6
Number returned from out on ticket.....	18
Number of returned escapes.....	...
Total.....	471

S. J. M. PUTNAM, Superintendent.

INSTITUTE FOR THE EDUCATION OF THE BLIND AT JANESVILLE.

(From the Superintendent's Report.)

The history of the year just closed is very much like that of the preceding years. Faithful work of teachers, combined with industry and ambition of pupils, has resulted in a good degree of advancement in each department of the institution.

Ninety-one persons, forty-one males and fifty females, have received instruction. Of this number twenty have been admitted since the date of the last report, and ten have closed their connection with the school. Our pupils returned to school after the summer vacation with a commendable degree of promptness, only one of those expected to return, being still absent at this date. Three are detained at home by ill-health. One still considered a member of the school is not expected to be present this term. A few new pupils are expected soon. The number now present is seventy-six.

There have been no material changes in the general plan of instruction. The course pursued here is substantially the same as that of other American institutions for the blind. Classes were taught last term in history, algebra, rhetoric, grammar, arithmetic, geography, reading and spelling. This term there are five classes in spelling, five in reading, four in geography, seven in arithmetic, and one each in grammar, algebra, physiology, and English literature. During one hour of each day, the youngest pupils are taught according to a modification of the kindergarten system. Their improvement, especially in the use of their hands, is manifest, and we hope, with more experience, still better results may be obtained.

The usual attention has been given to music. This term we have

an intermediate, as well as a primary and an advanced choir. We have also two classes in harmony, that meet alternate days. Lessons have been given on the piano, cabinet organ and violin, and also in vocal culture. A new and profitable feature in the musical education has been a series of illustrated lectures on various themes pertaining to the general subject of music, given by Mr. Van Cleve. In the industrial department, the manufacture of corn brooms has been continued. The value of this work consists not only in the knowledge of how to make brooms, but also in the skill acquired in the use of tools, and the habit of industry. Cane-seating has been taught to both boys and girls. Weaving of rag-carpet has been found to afford a comfortable support to blind persons in some sections of the state, even in the present "hard times." A loom has this fall been purchased, in order that this branch of industry may be taught to those of our pupils whose circumstances render it probable that this may be a profitable occupation for them.

Our girls learn to sew, knit, crochet, and do various other kinds of work which may render them helpful members of a family circle. It is our design to introduce every new industry which seems likely to afford our scholars profitable employment, or such manual dexterity as will enable them to do well whatever their hands find to do. With this in view, we expect soon to introduce the knitting machine. We know it is practicable for blind girls to learn to use this skillfully, for it has been done with eminent success in the New York City Institution for the blind. * * *

The great event of the year has been the completion of the main building which replaces the one destroyed by fire in 1874. The institution has now accommodations sufficient for all who may naturally be expected to attend the school for a number of years to come. * * *

More teachers are required than for the same number of pupils in an ordinary school. We aim to give our scholars a substantial English education, believing this a fundamental requisite for accomplishing the purpose for which the institution was established.

The great variety in age, attainments and ability gives us, with our comparatively small number of scholars, about all the grades found in our common schools, from the lowest primary to the upper high school classes. Instruction in nearly all these classes must be given orally; hence, the time devoted to each class must be suffi-

cient, not only for recitation, but also for learning a new lesson. This must be the case until text-books can be furnished cheaply enough to warrant the expense of supplying each pupil with a book, as is the case in schools for seeing children. Until this can be done, learning the lesson from the lips of a skilled teacher must be preferred to any other method. The necessity for guiding each hand over maps and other apparatus renders it impossible to teach large classes, except in a few branches. * * *

It would be impossible for us to make a suitable classification with our present number of teachers, but for the assistance rendered by several of our older pupils. This term, five classes are taught in this way.

In addition to their work in the schoolroom, our teachers must render considerable assistance to the pupils in reading, writing, etc., out of school hours.

Mrs. THOMAS H. TUTTLE,
Superintendent.

INSTITUTION FOR THE EDUCATION OF THE DEAF AND DUMB, AT DELAVAN.

[From the Principal's Report.]

During the year, one hundred and eighty pupils were registered; the average attendance was one hundred and fifty-five; a number considerable in advance of any previous year. These were arranged in nine classes, or grades, each under the care of a teacher; while a tenth teacher gave instruction wholly by articulation to seven pupils, and in the practice of articulation for a portion of each day, to twenty others, all semi-mutes, with whom it was deemed possible to keep and improve the ability to speak.

The progress of the pupils has been, in the main, satisfactory. The average natural ability is as good as among the same number of children possessing all their senses, and their application and industry are certainly equal, but the difficulties to be overcome are greater.

We may safely suppose the deaf infant equal in all points of natural endowment to the hearing one. It is when the child begins to learn that the disadvantages arising from the closing of the main

avenue to the mind—the ear—are discovered. Could means be devised for completely overcoming these, the deaf youth, experiencing no unusual hindrance in the processes of education, would continue the equal of his hearing brother. Yet, while in our work we lay hold of everything in natural provisions, and in artificial contrivances which will aid us, so far nothing has been found to meet the great want arising from deafness. We do not find that where one sense is lost Nature supplies a full compensation by giving greater acuteness and power to remaining senses. Experience shows that skillful and continuous effort on the part of both teacher and pupil will induce the deficient one to substitute to a certain extent the action of another for that of the lost sense; and to put upon an existing sense more of the functions which are common to two or more senses; but the eye can never in any proper sense be said to hear, nor the ear to see.

The special work of each sense can be performed alone by that sense; and hence where one sense is lost, no skill in adaptation of means, no amount of faithfulness in application, can entirely remove the hindrance. We must recognize the inferiority of our pupils with respect to all that would be received by them through the sense of hearing.

I desire, therefore, that in noticing them, and in estimating their advancement in education, you will keep in mind this great disadvantage under which they labor, and give them and their teachers due credit for any excellence attained. * * *

It appears that there are ten counties containing a population of fifty thousand, from which there were during the year no pupils. It cannot be reasonably supposed that there are no children of suitable age and condition for admission within these counties; nor that there are but two or three in many other large and populous counties.

According to the general statistical tables, the whole number of deaf within the state would be about six hundred, the ratio being about one in every two thousand of population. Probably one-half of these are within the limits of school age—ten to twenty years. Allowing to each the full term prescribed by law, we ought to have at least two hundred and fifty pupils in the institute. But as some do not ask, others would not be benefitted by, and still others, having received some education before becoming deaf, do

not need so long a term, we judge that of the whole number in the state, there ought to be in school to-day two hundred pupils.

I call attention to this condition of things, not for the purpose of entering upon a discussion as to the reasons for it but with the hope of awakening interest, and of securing the co-operation of all who can aid in bringing those who are entitled to them to a ready acceptance of the generous and ample provisions made for them here. * *

INDUSTRIAL DEPARTMENT.

While it is not expected that the labor of the pupils shall be a source of income to the institute, it is very desirable that it should pay the expense of oversight and material necessary; and such is generally the fact. If, however, the industrial department should not prove self sustaining, the fact that any considerable number of pupils leave the institute prepared to make a living is sufficient to justify the outlay.

During the year there were employed in the cabinet shop twelve boys; in the shoe shop, fifteen; in the basket shop, twelve, and the remainder about the buildings and grounds, in work which would otherwise have cost the wages of hired men.

All the girls have received daily instruction in plain and ornamental needle work, and performed the chamber and dining room work for themselves and the boys. They have also assisted, as far as practicable, in the laundry. This work, from its character and variety, cannot be accurately estimated in dollars and cents, and yet it has caused a material saving in expense of hired help, and taught them important lessons in domestic work. During the past year, the amount of house work done by the pupils has been very considerably increased. * * *

Type setting is an occupation in which the deaf have at least equal ability with the hearing; some have thought superior. It is taught in half the institutes in the United States, and can be well introduced here. A comparatively small outlay will be sufficient to meet the want, and I therefore earnestly recommend its introduction.

W. H. DE MOTTE,
Principal.

STATE EXAMINATION OF TEACHERS.

Held at Madison, Wis., August 7th, 1877.

INSTRUCTION TO CANDIDATES.

1. Keep this paper for reference during your examination.
2. (a) Write your
 1. Number,
 2. Name in full,
 3. Postoffice address,} on the card.
- (b) Place the card in the envelope, seal and file the envelope *on the back* with your number *only*.
3. Fill the blank B. and file it as a separate paper under rule 5.
4. In making a paper
 1. Number the pages in succession,
 2. Write on but one side of a sheet,
 3. Number answers in the margin to correspond with questions,
 4. Leave at least one blank line between two answers,
 5. Write so there may be no occasion for doubt as to your meaning,
 6. In mathematics place all work on the paper, using symbols.
5. When a paper is completed
 1. Fold it and place it with the questions in a large envelope,
 2. Seal the envelope and file it with your number and the subject to which it relates.

STATEMENT.

1. My name is ———.
2. I was educated at ———, during the years ———.
3. I have taught ——— months.

4. I taught in
 - Mixed Schools at
 - , during the year 18—.
 - , during the year 18—.
 - Graded Schools,
 - Primary Department at
 - , during the year 187—.
 - , during the year 18—.
 - Intermediate Department at
 - , during the year 18—.
 - , during the year 18—.
 - Grammar Department at
 - , during the year 18—.
 - , during the year 18—.
 - High School at
 - , during the year 18—.
 - , during the year 18—.
5. I can — teach the elements of vocal music.
6. I do — play on (name instrument).
7. I can — teach Gymnastics.
8. I have been an active member of Teachers' Institutes in — counties.
9. I hold — grade certificate from — —.
10. For testimonials of professional success, I refer to — —.
11. For testimonials of moral character, I refer to — —.

ARITHMETIC.

1. Given four units of the fifth order on a scale of nine, and seven units of the fourth order on a scale of eight: required their difference expressed on a scale of six.
2. Divide $4\frac{3}{4}$ by $7\frac{1}{2}$. (Do not "analyze," but state the mathematical principle for each operation.)
3. Kerosene is bought at 40 cents a gallon: 10 per cent. of it is wasted: at what price must it be offered so that price may be discounted 10 per cent., and the kerosene be sold so 10 per cent. is made on the investment?
4. Explain a method of finding the greatest common divisor and the least common multiple of fractions.

5. Make a commercial bill in due form, receipted, folded, and filed, involving three items.

6. A and B get 30 Troy ounces of silver for doing a work in 30 hours,—B doing such part of the work as that he could do $.00\frac{1}{4}$ of the whole work in .21 hours: how many dollars does A receive for doing his share of work, if \$6.00 silver weighs $1\frac{1}{4}$ ounces Avoirdupois?

7. What rate of discount is equivalent to 10 per cent. interest for one year without grace?

8. When I pay brokerage at the rate of $\frac{1}{8}$ per cent. of all money actually handled for me, I make \$1188.50 by buying stock at 7 per cent. discount through a broker, and selling it through a broker at 6 per cent. discount, what is the par value of the stock purchased?

9. Discuss the economic bearing of the United States Rule for settlement when installments have been paid on interest-bearing notes.

10. Discuss the economic antecedents of circuitous exchange.

ORTHOGRAPHY AND ORTHOEPY.

(All work must conform to Webster's Dictionary.)

1. Define Orthoepy and Orthography, and state how the two are related. Define Syllable.

2. Add the suffix *ed* to the words, *apply*, *money*, *confer* and *differ*, and give the rules which govern the spelling of the derivative in each case.

3. Add the suffix *able* or *ible*, as the case may require, to the words, *reduce*, *service*, *agree* and *refer*, and give the rule, or law of exception, which applies in each case.

4. Capitalize properly the words, *tuesday*, *christian*, *Democrats*, *winter* and *indian*, and give the proper rule for each case.

5. State the exact difference between Vocals, Sub-vocals and Aspirates. How many sounds have we in each class?

6. Define Diphthong. Represent by the proper characters all the diphthongs of our language, with an analysis of each into its elements.

7. Show, by the exact means employed in Webster's Dictionary, the pronunciation of the words, *Calliope*, *obligatory*, *enervate*, *ex-*

emplary, combative, Danish, harass, forgery, subsidence and donkey.

8. State the rules, or principles, which govern the sound of italicized letters in the words, *starry, virulent, Niger* and *fugue*.

9. Give all the rules governing the sounds of vowels in unaccented syllables ending in consonants.

10. Write out an orthoepical analysis, according to any method which you know or can devise of the word *contradictoriness*.

ENGLISH GRAMMAR AND ANALYSIS.

(Select any eight questions.)

1. Define the terms Subject and Predicate, and give the Parts of Speech that may compose each.

2. Classify Sentences according to Structure, and define each class.

3. Analyze: "I have heard that the papers report him to have been killed."

4. Parse each word in the preceding Sentence.

5. Analyze: "*There are men who* deny the correctness of the *Free Trade policy*."

6. Parse the italicised words.

7. Analyze: "He will come *to see you* as soon as he has finished *what he has agreed to do*."

8. Parse the italicised words.

9. Analyze: "I heard *the General tell the Captain to tell the soldiers the news*."

10. Parse the italicised words.

READING.

1. State fully the ends which are to be attained in the teaching of Reading.

2. Outline a recitation in in the Second Reader as you would conduct it. How would you vary this plan for a class in the Third Reader.

3. Enumerate at least six of the most serious and prevalent faults in the reading of pupils, as usually taught.

4. State, in detail, the remedies employed by yourself in the correction of each of the faults you have named.

5. Justify the use or disuse of a Fifth Reader in common and grammar schools.

7. In what particulars must the teaching of prose reading differ from that of poetry?

7. Define Inflection. What is meant by a "slide" of the voice? What are the uses of inflection?

8, 9 & 10. Read aloud and analyze a paragraph to be assigned by the examiner.

ALGEBRA.

1. What is the proper place for Algebra in a philosophic course of study? State reasons for your opinion.

2. I can row A miles an hour in still water: I take twice as long to row 1 mile against the current as to row 1 mile with the current: what is the velocity of the current?

3. At what times between 12 and 2 o'clock is the minute hand as far from the I mark as the hour hand is from the XII mark?

4. A carriage running from Madison to Oshkosh met with an accident diminishing its speed to $1/N$ th of its former speed, and thereby arrived A hours late: if the accident had occurred B miles nearer Oshkosh, the carriage would have been C hours late: find the original velocity of the carriage.

5. Find the value of x in $\frac{1}{(a+x)^{-\frac{1}{2}}} + \frac{1}{(a-x)^{-\frac{1}{2}}} = \frac{12a(a+x)^{-\frac{1}{2}}}{5}$

State mathematical principles involved in operations.

6. Find the cube root of 474552, giving reasons for operations.

7. By formulation find the sum of the compound amounts of three annual life-insurance premiums of A dollars each at .00*B* interest.

8. Demonstrate that if four quantities are in proportion they will be in proportion by composition.

9. By formulæ insert two means in the arithmetic series having 12 for the second term and 23 for the fifth term, and find the sum of seven terms; explain the derivation of formulæ employed.

10. State your method of conducting recitations in Algebra, and the reasons for your procedure.

CIVIL GOVERNMENT.

1. State clearly the nature and objects of a constitution.
2. What powers and rights are reserved to the general government by the U. S. constitution?
3. Point out the especial defects of the present method of electing a president of the United States.
4. How are the presiding officers of the two houses of congress chosen?
5. Outline the present organization of the United States judiciary system — names and number of courts, number of judges, etc.
6. State the full tenor of the 14th and 15th amendments to the United States constitution.
7. State in detail the process by which an alien may become a United States citizen.
8. By what authority is the right of suffrage conferred, and what are the conditions of its exercise in this state?
9. Discuss the legislative department of Wisconsin under the heads of (a) Membership, (b) Apportionment.
10. What is a county? Outline the system of county government which prevails in Wisconsin.

GEOGRAPHY.

1. Outline a scheme of geography with the needs of the child in view.
2. State the reasons for the order of your scheme in geography.
3. Show the relevance of geography to man's social condition.
4. Specify the lands of man's health and strength.
5. State the causes of the annual cycle of seasons.
6. State the leading features of land configuration and topography.
7. State the causes of the distribution of population of the United States.
8. Specify the leading means of material wealth and of physical health of the inhabitants of Wisconsin.
9. Specify by name the countries extending west around the globe, which have dense population. Assign causes for such aggregation of population.

10. Name twenty large cities of the earth with special causes which have massed people at each of those points.

U. S. HISTORY.

1. Give some account of all the various Spanish explorations in what is now the United States, during the 16th century.
2. Give some account of the principal events in the colonial history of Massachusetts.
3. What changes took place in the map of North America, between 1750 and 1820? State fully.
4. Discuss the "French Alliance" with reference to its origin and its results to the colonies.
5. Recount the public career and services of Alexander Hamilton.
6. Give a brief statement of the objects, results, etc., of each of the Colonial Congresses up to 1789.
7. Give an account of what is known as the Hartford Convention.
8. State the causes and results of the Mexican War.
9. Give a full history of the so-called Alabama Claims.
10. Wisconsin; time, place, etc., of (a) the first mission, (b) the first permanent settlement, (c) the first meeting of the legislature.

ENGLISH LITERATURE.

1. What foreign influences have permanently modified the English Language, and in what respect have they thus modified it?
2. Give the leading writers of the age of Chaucer, their Works and Characteristics.
3. To what Influences must the lack of Literature during the next century after Chaucer be attributed?
4. Give an outline of the development of the Drama.
5. What were the characteristics of the New Drama (after the Restoration), and mention the leading writers.
6. What brilliant circle of authors formed the Augustan age of English Literature in the reign of Queen Anne, and what are the best works of each?
7. Who composed the "Lake School of Poets," and what are the characteristics of the school?
8. Give the development of the Novel, and the leading English Novelists.

9. Give three leading English Historians, the works of each, and the style of each.

10. Give the five English Poets that you would place highest, and the masterpieces of each.

PENMANSHIP.

1. State the leading characteristics of any system with which you are acquainted, naming the system.

2. Describe closely the two positions for writing which you think best for pupils.

3. Name and describe the various movements, and state the special use of each.

4. Make and describe all the principles, or elements employed in your system.

5. Classify the small letters.

6. Analyze each of the letters contained in the word *earth*.

7. Make and analyze the capital letters E, J, T and W.

8. How would you teach penmanship in a primary department? State fully.

9 and 10. Write five or more lines as a specimen of your best hand-writing.

GEOMETRY.

1. What is the measurement of an angle?

2. Demonstrate the sum of the interior angles of a polygon of A sides.

3. State the objections to demonstrations based on superposition.

4. State the essential difficulty in exactness in squaring the circle.

5. Support your opinion of the importance of the study of Geometry. Specify the relation of accurate figures, memorized theorems and demonstrations, in attaining the end you have in view in the study of Geometry.

6. Support your views of the importance of mathematics; its place in a course of study; and one serious obstacle to the end sought in mathematics.

7. Demonstrate the equivalency of the sum of the interior angles on one side of a secant which cuts two parallels.

8. What is the magnitude of an angle in a half circle?

MENTAL PHILOSOPHY.

1. Define Mental Philosophy in its relation to Metaphysics and to the Natural Sciences.
2. What is a Mental Faculty?
3. What do you understand by Consciousness?
4. Give an analysis of the process of Sense-perception.
5. Define Imagination and state its function.
6. Give an analysis of the process of Generalization.
7. What is the function of the Intuitive Conceptions in Reasoning?
8. Classify the Sensibilities, defining each class.
9. Define the Will in its relation to the other Faculties.
10. How is Motive related to Freedom of the Will?

PHYSICS.

1. Outline the aerial, terrestrial and oceanic circulation of water from ocean to ocean again, specifying the forces which help and which retard the circulation.
2. State the physical reasons for the method of establishment of a standard of weights.
3. Show the relative velocity of a boat to the velocity of the propelling wind, and the direction of the boat to the propelling wind.
4. State the philosophy of the movement of liquid through a siphon.
5. State the conservation of forces in freezing ice-cream by means of salt and ice.
6. What must be the edge of a cubic vessel made from one cubic foot of gold whose specific gravity is 19.5, to float one-half its bulk above the surface of mercury, whose specific gravity 13.5?
7. State the direction and velocity during successive seconds of a ball projected vertically upward in a vacuum, with an initial velocity of 208 feet a second.
8. By induction establish the laws of refraction of light; by deductions from those laws show the causes of the rainbow.
9. Show the operations of three machines involving the principle of equilibrium fluids.

10. Discuss the relative weights of a body at the equator and the pole.

PHYSIOLOGY.

1. Give an outline of the mechanism of the human body.
2. State the physiology of the respiratory organs.
3. State the hygiene of the external protecting organs.
4. Classify the more important foods in their influences upon the human body.
5. State the relevance of knowledge of the anatomy of the organs of sense to intelligent training of the senses.
6. State the anatomy and physiology of the vocal organs in varied speech—using figures if desirable.
7. Define cavity, cell, tissue, organ, capillary, cerebrum, pain, disease, medicine, dislocation.
8. What has experience shown are the best processes for resuscitating a person apparently drowned? In a fit? Faint? Stunned by a blow?
9. State the relevance of health to food, to exercise, and to sleep.
10. Of what practical value is your knowledge of the human body to your pupil? Justify your answer.

THEORY AND ART OF TEACHING.

1. Are public schools vitally relevant to the perpetuity of this republic? Verify your answer.
 2. Tabulate the school system of Wisconsin.
 3. Show something of the ratio of influence of the public school to the influences of all other forces combined, in the enlightenment of the average pupil.
 4. State primary objects of a school, and therefore the duty of (a) the teacher, (b) the pupil, (c) the parent.
 5. State three fundamental facts which direct the method of organizing a school.
 6. Justify a graded school on a basis of benefit of an individual pupil.
- State the objects of a recitation in—*
7. Reading.
 8. Mathematics.

9. State conclusive evidence that a pupil comprehends a fact or an operation.
10. What in internal or external management has resulted most unfavorably to the school in your experience?

POLITICAL ECONOMY.

1. What Elements determine Value, and what determine Price?
2. Give the general principles that regulate Exchange.
3. Define Production, and give the advantages of Division and Labor.
4. Give the Arguments for Free Trade.
5. Give the Arguments for Protection.
6. What Determines the Rate of Wages, the Rent of Land, and the Interest on Money?
7. How are Capital and Labor related, and what is the effect of Strikes upon the Capitalists and the Laborer?
8. What is Money? What is its Function, and how is Currency related to Money?
9. What is a Bank, and how does a Bank of Issue affect Prices?
10. What Principles of Political Economy are involved in the Granger Movement?

CHEMISTRY.

1. What is chemistry?
2. Define atom, molecule, element, atomic weight, molecular weight?
3. What is a compound radical? Give examples.
4. Into what two classes are elements usually divided; and what is the basis of this division? Into which class would you put arsenic? Why?
5. State the law of definite proportions, and the law of multiple proportions. Illustrate each by an example.
6. Explain each of the following terminations: *ous, ic, ide, ite, ate*. Give examples.
7. What is an acid, a base, a salt, a normal salt, an acid salt?
8. Explain the relation between the density of a gas and its molecular weight. Illustrate with the following examples: HCl, H₂O, NH₃.—the atomic weights being as follows: H=1; N=14; O=16; Cl. 35.5.

9. Give the composition of illuminating gas, and the chemical process of its manufacture.

10. Explain the process of combustion. What is flame and what determines its luminosity.

GENERAL HISTORY.

1. Give a concise account of the government and religion of ancient Egypt.

2. Contrast Themistocles and his times with Demosthenes and his times.

3. Give some account of the first Roman Triumvirate.

4. Sketch the rise of the Saracenic power after the death of Mahomet.

5. What was Feudalism, and what causes contributed to its overthrow?

6. Give an account of the Thirty Years' War, with reference to its causes, prominent actors, and results.

6. What influence has John Milton had upon the political history of the world?

8. What is meant by the Reign of Terror? By what was it brought about?

9. What events have greatly affected the courses of the world's commerce since the days of the Phœnicians?

10. What are the historical elements of the present "Eastern Question?"

GEOLOGY.

1. Give such an outline or classification of the animal kingdom as is essential to the study of Geology.

2. Explain the terms, *geoclinal*, *concretion*, *unconformable*, *graphite*, and *conglomerate*.

3. Name the ages of the Palæozoic Time, and state the general characteristics of each.

4. Describe the Potsdam Sandstone and state in what localities in the United States it is found.

5. What is limestone, and what is its origin?

6. Describe the general features of life in the Triassic and Jurassic Periods.

7. Indicate the geographical distribution, in the United States, of the rocks of the Tertiary Age.

8. Define drift, and account for its presence in this region.

9. State the geological theory of earthquakes. Of geysers.

10. What practical results are to be expected from the geological survey of this state?

BOTANY.

1. Name and describe the kinds of Buds.

2. Name and describe the kinds of Underground Stems.

3. Name and describe the kinds of Indeterminate Inflorescence.

4. Define the terms Perfect, Complete, Irregular, Incomplete, Unsymmetrical, as applied to Flowers.

5. Show how the parts of Stamen and Pistil correspond to those of a leaf.

6. From what structures in the Flower are the soft and the hard parts produced in the Strawberry, Blackberry, Raspberry, Whortleberry.

7. Define the four kinds of ovules.

8. Define Cellular Tissue, Woody Tissue, Fibres, Vessels.

9. Give an account of the process of Assimilation in Plants.

10. Describe the formation and the fertilization of the ovule.

REPORTS OF UNIVERSITIES AND COLLEGES.

UNIVERSITY OF WISCONSIN.

ANNUAL REPORT of the President of the UNIVERSITY OF WISCONSIN,
for the year ending September 30, 1877:

1. Corporate name of the institution, University of Wisconsin.
2. Name of the place where the institution is located, Madison, Wisconsin.
3. Year when the institution was founded, incorporated July 26, 1848.
4. Names of members of the faculty, with their respective salaries:

NAMES.	Departments of Instruction.	Salaries.
John Bascomb, D. D., LL. D.	President and Professor of Mental and Moral Philosophy	\$3,500 & house
John W. Sterling, Ph. D.	Vice President and Professor of Mathematics	2,200
William F. Allen, A. M.	Professor of Latin and History	2,000
Stephen H. Carpenter ...	Professor of Logic and English Literature	2,000
Alexander Kerr, A. M. ...	Professor of the Greek Language and Literature	2,000
John B. Feuling, Ph. D. ...	Professor of Modern Languages and Comparative Philology	2,000
William J. L. Nicodemus, A. M., C. E.	Professor of Military Science and Mechanical Engineering	2,000
Sohn B. Parkinson, A. M. ...	Professor of Civil Polity and Political Economy	2,000
John E. Davies, A. M., M. D.	Professor of Astronomy and Physics	2,000
W. W. Daniells, M. S. ...	Professor of Agriculture and Chemistry	2,000
Roland Irving, A. M., E. M.	Professor of Geology, Mining and Metallurgy, and Curator of Cabinet	2,000
R. B. Anderson, A. M. ...	Professor of Scandinavian Languages and Librarian	1,500
Hon. Orsamus Cole, LL. D.	Associate Justice of the Supreme Court of Wisconsin, Professor of Law	} Law faculty \$3,000 per year and fees
Hon. William Penn Lyon, LL. D.	Associate Justice of the Supreme Court of Wisconsin, Professor of Law	
J. H. Carpenter, LL. D. ...	Dean of Law Faculty	
William F. Vilas, LL. B. ...	Professor of Law	
I. C. Sloan, Esq.	Professor of Law	
S. U. Pinney, Esq.	Professor of Law	
J. B. Cassoday, Esq.	Professor of Law	
John M. Olin	Instructor in Rhetoric and Oratory	\$1,600
Edward A. Birge, A. B. ...	Instructor in Natural History and Assistant Curator of Cabinet	1,200
Seymour W. Tulloch, C. E. ...	Assistant in Civil Engineering	600
Charles I. King	In charge of the Machine Shop	1,000
Samuel W. Trousdale, A. B.	Instructor in English and Elocution	600
C. P. Etten	Instructor in Vocal and Instrumental Music	Fees.
Mrs. D. E. Carson	Preceptress	1,000
Miss S. A. Carver	Instructor in French and German	800

	<i>Male.</i>	<i>Female.</i>
5. Total number who have graduated	407	71
6. Number who graduated at last commencement.....	34	8
7. Number of students in the Senior Class	20	5
8. Number of students in the Junior Class	28	12
9. Number of students in the Sophomore Class.....	31	11
10. Number of students in the Freshman Class.....	62	20
11. Number of students not in the Regular Classes.....	88	19
12. Number of students in the Preparatory Department.....	86	23

13. Number of acres of land owned by the institution.	Site, and balance of land grants.
14. Estimated cash value of land owned by the institution.....	
15. Estimated cash value of buildings owned by the institution,	\$250,000 00
16. Amount of endowments and funds except real estate.....	476,683 33
17. Amount of income for the current year from all sources except tuition.....	82,628 06
18. Amount received for tuition during the current year.....	
19. Rates of tuition in collegiate department per annum, not including board.....	Free.
20. Rates of tuition in preparatory department per annum, not including board.....	Free.
21. Amount paid on account of expenses of the institution, exclusive of building and repairs, during the year ending September 30, 1877.....	65,027 83

JOHN BASCOM, *President.*

BELOIT COLLEGE.

ANNUAL REPORT of the President of the Board of Trustees of BELOIT COLLEGE, for the year ending August 31, 1877.

1. Corporate name of the institution, The Board of Trustees of Beloit College.
2. Name of the place where the institution is located, Beloit.
3. Year when the institution was founded, 1847.
4. Names of members of the faculty, with their respective salaries:

Names.	Departments of Instruction.	Salaries.
A. L. Chapin, D.D., Prest.	History and Civil Polity.....	\$1,800
Rev. Jos. Emerson, M. A.	Greek Language and Literature.....	1,500
Rev. Wm. Porter, M. A.	Latin Language and Literature.....	1,500
Jas. J. Blaisdell, D. D....	Mental and Moral Philosophy.....	1,500
¹ James H. Eaton, Ph. D.	Chemistry and Mineralogy.....	1,500
Rev. H. M. Whitney, M. A.	Rhetoric and English Literature.....	1,500
Peter Hendrickson, M. A.	Modern Languages.....	1,500
² T. C. Chamberlin, M. A.	Geology, Zoölogy and Botany.....	
Ira W. Pettibone, M. A.	Mathematics, and Prin. Prep'y School..	1,500
G. D. Swezey, M. A.	Instruction in Physics and Nat. History.	1,000
John V. Horne, B. A.	Assistant in Preparatory School.....	800

¹ Died January, 1877.

² Engaged on the State Geological Survey.

	<i>Male.</i>	<i>Fem.</i>
5. Total number who have graduated.....	244	....
6. Number who graduated at last commencement.....	21	....
7. Number of students in the Senior Class.....	21	....
8. Number of students in the Junior Class.....	17	....
9. Number of students in the Sophomore Class.....	18	....
10. Number of students in the Freshman Class.....	29	....
11. Number of students not in the regular classes.....	none.	....
12. Number of students in the Preparatory Department.....	94	....
13. Number of acres of land owned by the institution —		
Site	20	....
Lands in Wisconsin.....	601	....
Lands in other states.....	747	....
		1,368
14. Estimated cash value of land owned by the institution.....	\$32,100	00
15. Estimated cash value of buildings owned by the institution.	55,500	00
16. Amount of endowments and funds, except real estate...	128,080	00
17. Amount of income for the current year from all sources except tuition.....	11,509	13
18. Amount received for tuition during the current year.....	4,386	75
19. Rates of tuition in collegiate department, per annum, not including board	36	00
20. Rates of tuition in preparatory department, per annum, not including board.....	26	00
21. Amount paid on account of expenses of the institution, exclusive of building and repairs, during the year ending August 31, 1877.....	15,909	82

A. L. CHAPIN,
President of the Board of Trustees.

CARROLL COLLEGE.

ANNUAL REPORT of the President of the Board of Trustees of CARROLL COLLEGE for the year ending August 31, 1877.

1. Corporate name of the institution, Carroll College.
2. Name of the place where the institution is located, Waukesha, Wis.
3. Year when the institution was founded, 1846 (reorganized, 1873).
4. Names of members of the faculty, with their respective salaries:

NAMES.	Departments of Instruction.	Salaries.
W. L. Rankin, A. M.....	Principal.....	\$1,200
Miss Alice P. Perry.....	Principal of Grammar Department.....	450
Mrs. L. E. Allason.....	Assistant in English branches.....	....
Hugo Philler, M. D.....	Instructor in German.....	....
Rev. T. G. Watson.....	Instructor in Elocution.....	....

	<i>Male.</i>	<i>Fem.</i>
5. Total number who have graduated from preparatory department	15	11
6. Number who graduated at last commencement from preparatory department	8	7
7. Number of students in the Senior Class .....	....	....
8. Number of students in the Junior Class .....	....	....
9. Number of students in the Sophomore Class .....	....	....
10. Number of students in the Freshman Class .....	....	....
11. Number of students not in the regular classes .....	....	....
12. Number of students in the Preparatory Department	8	....
13. Number of acres of land owned by the institution		14
14. Estimated cash value of land owned by the institution	\$5,000	00
15. Estimated cash value of buildings owned by the institution	10,000	00
16. Amount of endowments and funds except real estate	2,000	00
17. Amount of income for the current year from all sources except tuition		240 00
18. Amount received for tuition during the current year	1,880	00
19. Rates of tuition in collegiate department per annum, not including board .....		....
20. Rates of tuition in preparatory department per annum, not including board		24 to \$33
21. Amount paid on account of expenses of the institution, exclusive of building and repairs, during the year ending August 31, 1877	\$3,223	23

VERNON TICHENOR,
President of the Board of Trustees.

LAWRENCE UNIVERSITY.

ANNUAL REPORT of the President of the Board of Trustees of the LAWRENCE UNIVERSITY OF WISCONSIN, for the year ending August 31, 1877.

1. Corporate name of the institution, The Lawrence University of Wisconsin.
2. Name of the place where the institution is located, Appleton.
3. Year when the institution was founded, 1847.
4. Names of members of the faculty, with their respective salaries:

NAMES.	Departments of Instruction.	Salaries
Rev. G. M. Steele, D. D..	Pres't Ethics and Civil Polity	\$1,500
Hiram A. Jones, A. M...	Ancient Languages	1,000
Rev. W. C. Sawyer, Ph. D.	Philosophy and Rhetoric	1,000
J. C. Foye, A. M.	Chemistry and Physics	1,000
D. M. Hyde, C. E.	Mathematics and Civil Engineering	1,000
Mary E. Harriman, A. M.	Preceptress, Latin and French	700
Sellia A. Clark	Drawing and Painting .....	....
Sarah S. Fitch	Instrumental and Vocal Music .....	....

	<i>Male.</i>	<i>Fem.</i>
5. Total number who have graduated.....	180	68
6. Number who graduated at last commencement	6	6
7. Number of students in the senior class.....	9	7
8. Number of students in the junior class.....	13	6
9. Number of students in the sophomore class.....	14	10
10. Number of students in the freshman class.....	15	14
11. Number of students not in the regular classes.....	....	....
12. Number of students in the preparatory department	56	25
		<hr/>
13. Number of acres of land owned by the institution, about....		500
14. Estimated cash value of land owned by the institution, about	\$12,000	
15. Estimated cash value of buildings owned by the institution.	35,000	
16. Amount of endowments and funds except real estate.....	60,000	
17. Amount of income for the current year, except tuition.....	8,000	
18. Amount received for tuition during the current year.....	3,600	
19. Rates of tuition in collegiate department per annum, not including board		21
20. Rates of tuition in preparatory department per annum, not including board.....		15
21. Amount paid on account of expenses of the institution, exclusive of building and repairs, during the year ending August 31, 1877	9,000	
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G. M. STEELE,
President of the Board of Trustees.

MILTON COLLEGE.

ANNUAL REPORT of the President of the Board of Trustees of MILTON COLLEGE, for the year ending August 31, 1877.

1. Corporate name of the institution, Milton College.
2. Name of the place where the institution is located, Milton, Rock county, Wisconsin.
3. Year when the institution was founded, in 1844, as an Academy; and in 1867, as a College.
4. Names of members of the faculty, with their respective salaries.

Names.	Departments of Instruction.	Salaries.
Rev. W.C. Whitford, A.M.	Physical, Mental and Moral Sciences ...	\$1,000
Albert Whitford, A. M...	Pure Mathematics and Latin Language..	1,000
Miss Jane C. Bond, A. M.	English Department	425
Mrs. C. C. Whitford A. M.	German Language,.....	200
Mrs. Ruth H. Whitford..	English Department	120
Miss Mary Jane Haven..	Instrumental Music.....	200
O. Eugene Larkin	Latin Language	135
James Mills	Penmanship	45

	<i>Male.</i>	<i>Fem.</i>	<i>Total.</i>
5. Total number who have graduated	63	65	128
6. Number who graduated at last commencement.....	4	5	9
7. Number of students in the Senior Class.....	3	.....	3
8. Number of students in the Junior Class.	6	2	8
9. Number of students in the Sophomore Class.....	16	14	30
10. Number of students in the Freshman Class.....	20	24	44
11. Number of students in the Regular Classes.....	.....	.....	.....
12. Number of students in the Preparatory Department ..	75	65	140
13. Number of acres of land owned by the institution.....			173.5
14. Estimated cash value of land owned by the institution.....			\$3,900 00
15. Estimated cash value of buildings owned by the institution...			30,550 00
16. Amount of endowments and funds except real estate			5,800 00
17. Amount of income for the current year from all sources except tuition			203 25
18. Amount received for tuition during the current year.....			3,853 63
19. Rates of tuition in collegiate department per annum not including board			27 to 33
20. Rates of tuition in preparatory department per annum, not including board			24 to 27
21. Amount paid on account of expenses of the institution, exclusive of building and repairs, during the year ending August 31, 1877			3,839 50

W. C. WHITFORD,

President of the Board of Trustees.

NORTHWESTERN UNIVERSITY.

ANNUAL REPORT of the President of the Board of Trustees of NORTHWESTERN UNIVERSITY, for the year ending August 31, 1877.

1. Corporate name of the institution, Northwestern University.
2. Name of the place where the institution is located, Watertown.
3. Year when the institution was founded, 1864.
4. Names of members of the faculty, with their respective salaries:

Names.	Departments of Instruction.	Salaries.
August F. Ernst.....	Mental Philosophy.....	\$1,200
Dr. W. F. Notz.....	Greek Language.....	1,000
Theodore Brohm.....	English Language.....	1,000
A. W. Easterley.....	Mathematics.....	850
A. L. Graebner.....	Latin Language.....	800
F. Deibert.....	Geography, History, etc.....	700
A. Treller.....	Ancient Languages and German.....	600

	Male.	Fem.
5. Total number who have graduated.....	21	....
6. Number who graduated at last commencement.....	5	....
7. Number of students in the Senior Class.....	5	....
8. Number of students in the Junior Class.....	7	....
9. Number of students in the Sophomore Class....	12	....
10. Number of students in the Freshman Class.....	10	....
11. Number of students not in the regular classes.....	104	11
12. Number of students in the Preparatory Department.....	41	....
13. Number of acres of land owned by the institution.....	39	
14. Estimated cash value of land owned by the institution.....	\$12,000	
15. Estimated cash value of buildings owned by the institution.....	36,000	
16. Amount of endowment and funds except real estate.....		
17. Amount of income for the current year from all sources except tuition.....	8,000	
18. Amount received for tuition during the current year.	2,150	
19. Rates of tuition in collegiate department per annum, not including board	30	
20. Rates of tuition in preparatory department per annum, not including board	30	
21. Amount paid on account of expenses of the institution, exclusive of building and repairs, during the year ending Aug. 31.....	7,850	

AUGUSTUS F. ERNST,
President.

RIPON COLLEGE. •

ANNUAL REPORT of the President of the Board of Trustees of RIPON COLLEGE, for the year ending August 31, 1877.

1. Corporate name of the Institution, Ripon College.
2. Name of the place where the institution is located, Ripon, Fond du Lac county, Wisconsin.
3. Year when the institution was founded [as a college], 1863. Charter granted 1854, and amended 1864.
4. Names of the members of the faculty, with their respective salaries:

Names.	Departments of Instruction.	Salaries.
E. H. Merrell, A. M., Pres	Mental and Moral Science.....	\$1,200
J. M. Geery, A. M.	Eng. Lit., Rhetoric and Political Phil...	1,000
E. A. Kenaston, A. M....	Mathematics and Astronomy.....	1,000
J. C. Fillmore, A. M.	Music	
C. G. Baldwin, A. M....	Latin Language and Literature.....	1,000
J. A. Towle, A. M.	Greek Language and Literature.....	1,000
H. A. Sabin, B. S.	Chemistry and Natural Science.....	900
H. G. Denison, A. M....	Principal of Preparatory School.....	900
G. C. Duffie, A. M.	Principal of English Academy.....	600
H. B. Mitter, A. M.	Instructor in Latin and English branches	600
Mrs. C. T. Tracy	Inst'r in Botany and English branches..	550
Miss Emma Ellis	Piano and Vocal Culture....	500

	<i>Male.</i>	<i>Fem.</i>
5. Total number who have graduated.....	51	29
6. Number who graduated at last commencement.....	7	2
7. Number of students in Senior Class.....	7	2
8. Number of students in Junior Class.....	4	5
9. Number of students in Sophomore Class.....	3	5
10. Number of students in Freshman Class.....	11	4
11. Number of students not in the regular classes.....	3	5
12. Number of students in the Preparatory Department, English Academy and Music.....	123	126
13. Number of acres of land owned by the institution.....		100
14. Estimated cash value of land owned by the institution ..		\$700
15. Estimated cash value of buildings owned by the institution.....	65,000	
16. Amount of endowments and funds except real estate, including Dodge fund.....		53,732
17. Amount of income for the current year from all sources except tuition		18,650
18. Amount received for tuition during the current year.....		2,494
19. Rates of tuition in collegiate department per annum, not including board.....		24
20. Rate of tuition in preparatory department per annum, not including board.....		21
21. Amount paid on account of expenses of the institution, exclusive of building and repairs, during the year ending August 31, 1877	16,035	

EDWARD H. MERRELL,
President of the Board of Trustees.

REPORTS OF ACADEMIES AND SEMINARIES.

ELROY SEMINRAY.

*ANNUAL REPORT of the President of the Board of Trustees of
ELROY SEMINARY, for the year ending August 31, 1877.*

1. Corporate name of the institution, Elroy Seminary.
2. Name of the place where the institution is located, Elroy, Juneau count Wisconsin.
3. Year when the institution was founded, A. D. 1873.
4. Names of members of the faculty, with their respective salaries:

NAMES.	Departments of Instruction.	Salaries.
Rev. F. M. Washburn, A. B.	Principal	\$800 00
C. E. Booth, M. D.	Professor Anatomy and Physiology.....	
Myra A. Johnson, M. A. .	Lady Principal.....	400 00
Martha A. Washburn, M. A.	Teacher History and English Literature.....	
Miss M. J. Gifford	Teacher of Music	

	Male.	Fem
5. Total number who have graduated	4	....
6. Number who graduated at last commencement.....	4	....
7. Number of students in the Junior Class	3	3
8. Number of students in the Second Year Class	3	3
9. Number of students in the First Year Class.....	3	2
10. Number of students in the Preparatory Department.....	14	13
11. Number of acres of land owned by the institution.....		2
12. Estimated cash value of land owned by the institution	\$200 00	
13. Estimated cash value of buildings owned by the institution.	8,000 00	
14. Amount of endowments and funds except real estate		
15. Amount of income for the current year from all sources except tuition.....	85 00	
16. Amount received for tuition during the current year.....	772 75	
17. Rates of tuition in academical department per annum, not including board.....	21 00	
18. Rates of tuition in preparatory department per annum, not including board	15 00	
19. Amount paid on account of expenses of the institution, exclusive of building and repairs, during the year ending August 31, 1877	95 25	

JOHN HUTCHINSON,
President of the Board of Trustees.

KEMPER HALL.

ANNUAL REPORT of the President of the Board of Trustees of
KEMPER HALL, for the year ending August 31, 1877.

1. Corporate name of the institution, Kemper Hall.
2. Name of the place where the institution is located, Kenosha.
3. Year when the institution was founded, 1870.
4. Names of members of the faculty, with their respective salaries:
Rev. Geo. M. Everhart, Rector, assisted by three professors and eight lady teachers and officers.

	Male.	Fem.
5. Total number who have graduated.....	21	
6. Number who graduated at last commencement ...	7	
7. Number of scholars in the Senior class.....	7	
8. Number of scholars in the Intermediate class.....	11	
9. Number of scholars in the Junior class	8	
10. Number of scholars in the Preparatory department....	27	
<hr/>		
11. Number of acres of land owned by the institution.....	8	
12. Estimated cash value of land owned by the institution.....		
13. Estimated cash value of buildings owned by the institution..		
14. Amount of endowments and funds except real estate.....		
15. Amount of income for the current year from all sources except tuition.....		
16. Amount received for tuition during the current year.....	\$8,000	00
17. Rates of tuition in academical department per annum, not including board.....	\$100 00 to	200 09
18. Rates of tuition in preparatory department per annum, not including board.....	\$100 00 to	200 00
19. Amount paid on account of expenses of the institution, exclusive of building and repairs, during the year ending August 31, 1876	18,000	00
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GEO. M. EVERHART,
Vice President of the Board of Trustees.

ROCHESTER SEMINARY.

*ANNUAL REPORT of the President of the Board of Trustees of
ROCHESTER SEMINARY, for the year ending August 31, 1877.*

1. Corporate name of the institution Rochester Institute, changed to above.
2. Name of the place where the institution is located, Rochester, Racine county.
3. Year when the institution was founded, December, 1866, chartered January 21, 1867.
4. Names of members of faculty, with their respective salaries:

Names.	Departments of Instruction.	Salaries.
Rev. O. D. Augir.....	President of Board of Trustees .....	.....
R. F. Pouley, M. S.....	Principal, Math., Languages, Science...	\$800
Mrs. R. F. Pouley, M. S.	Preceptress, Higher Eng., Latin, Hist...	400
Miss Frances S. Cass....	Assistant, and Music.....	375

	Male.	Fem.
5. Total number who have graduated.....	4	6
6. Number who graduated at last commencement.....	1	1
7. Number of students in the 4th year class.....	4	5
8. Number of students in the 3d year class.....	8	11
9. Number of students not in the regular classes	34	23
	<u> </u>	<u> </u>
10. Number of acres of land owned by the institution....		1½
11. Estimated cash value of land owned by the institution.....		
12. Estimated cash value of buildings owned by the institution, and grounds		\$5,000 00
13. Amount of endowments and funds except real estate.....		
14. Amount of income for the current year from all sources except tuition.....		490 00
15. Amount received for tuition during the current year	1,265	66
16. Rates of tuition in academical department per annum, not including board.....		27 00
17. Rates of tuition in preparatory department per annum, not including board.....		24 00
18. Amount paid on account of expenses of the institution, exclusive of building and repairs, during the year ending August 31, 1877.....		1,750 06
		<u> </u>

REV. O. D. AUGIR,
President of the Board of Trustees.
Per POULEY.

STATISTICAL TABLES.

The following apportionment was made in June last, on the returns made for the school year ending August 31, 1876. The rate was 41 cents per scholar. The amount received by the independent cities is included:

TABLE No. I.
APPORTIONMENT OF SCHOOL FUND INCOME IN 1876.

COUNTIES.	No. of Children.	Apportionment.
Adams	2,571	\$1,054 11
Ashland	256	104 96
Harron	1,240	508 40
Bayfield	247	101 27
Brown	12,501	5,125 41
Buffalo	5,806	2,389 46
Burnett	421	172 61
Calumet	6,070	2,488 70
Chippewa	4,085	1,674 85
Clark	2,505	1,027 05
Columbia	11,380	4,665 80
Crawford	6,004	2,461 64
Dane	20,737	8,502 17
Dodge	19,160	7,855 60
Door	8,109	1,274 69
Douglas	267	109 47
Dunn	4,811	1,972 51
Eau Claire	4,940	2,025 40
Fond du Lac	19,786	8,112 26
Grant	15,535	6,369 35
Green	8,578	3,514 93
Green Lake	5,523	2,264 43
Iowa	10,051	4,120 91
Jackson	4,252	1,743 32
Jefferson	13,661	5,601 01
Juneau	5,774	2,367 34
Kenosha	5,206	2,134 46
Kewaunee	6,173	2,530 93
La Crosse	8,267	3,389 47
La Fayette	8,366	3,430 06
Lincoln	279	114 39
Manitowoc	16,785	6,881 85
Marathon	8,850	1,578 50
Marquette	8,634	1,489 94
Milwaukee	48,298	17,752 18
Monroe	7,984	3,273 44
Oconto	4,093	1,678 13
Outagamie	10,161	4,166 01
Ozaukee	7,194	2,949 54
Pepin	2,273	931 93
Pierce	5,894	2,416 54

TABLE No. I — *Apportionment* — continued.

Counties.	No. of Children.	Apportion- ment.
Polk	2,447	1,008 27
Portage	5,394	2,211 54
Racine	10,548	4,324 68
Richland	7,020	2,878 20
Rock	18,944	5,717 04
St. Croix	5,679	2,328 89
Sauk	10,141	4,157 81
Shawano	2,179	893 39
Sheboygan	14,527	5,956 07
Taylor	192	78 72
Trempealeau	6,104	2,502 64
Vernon	9,168	3,758 88
Walworth	9,388	3,849 08
Washington	9,811	4,022 51
Waukesha	11,306	4,635 46
Waupaca	7,345	3,011 46
Wausara	4,910	2,013 10
Winnebago ..	16,043	6,577 63
Wood ...	1,915	785 15
Totals	470,783	193,021 03

TABLE No. II.—*Districts, children, and school attendance*—continued.

COUNTIES.	Whole number of school-districts in the county.	Number of districts which have reported.	Whole number of parts of districts in the county.	Number of parts of districts which have reported.	Number of male children over 4 and under 20 years of age.	Number of female children over 4 and under 20 years of age.	Whole number over 4 and under 20 years of age in county.	No. over 4 and under 20 yrs in districts maintaining school 5 or more months.	Number of days school has been taught by qualified teachers during the year.	Number over 4 and under 20 years who have attended school.	Number under 4 years who have attended school.	Number over 20 years who have attended school.	Total number of different pupils who have attended school during the year.	Number of days attendance of pupils over 4 and under 20 years.	Number of days attendance of pupils under 4 years.	Number of days attendance of pupils over 20 years.	Total number of days attendance of different pupils during the year.
Rock—																	
1st district....	58	58	58	58	2,844	2,200	4,544	4,498	16,786	8,857	7	32	8,896	288,124	126	1,267	289,537
2d district....	55	55	55	55	2,162	1,996	4,158	4,168	17,928	3,159	3	20	3,192	256,351	64	617	257,053
St. Croix.....	75	75	81	81	2,774	2,622	5,396	5,376	13,172	8,458	20	11	8,590	225,957	854	300	249,470
Hauk.....	126	126	75	75	5,407	5,140	10,547	10,547	21,097	7,264	9	46	7,319	566,905	67	2,886	569,808
Shawano.....	89	87	6	6	1,877	1,248	2,625	2,605	4,451	1,867	8	5	1,880	92,858	86	112	93,031
Sheboygan.....	110	110	27	27	5,951	5,655	11,604	11,606	19,745	6,898	12	19	6,924	533,679	197	1,218	535,059
Taylor.....	10	10	10	10	228	179	407	396	1,140	288	7	...	290	20,890	176	...	20,566
Trempealeau...	68	68	28	28	3,840	2,029	6,875	6,875	11,304	8,810	...	54	3,894	248,149	...	1,485	249,594
Vernon.....	148	148	60	60	4,765	4,369	9,134	9,114	21,695	6,226	12	75	6,313	343,626	115	2,487	346,298
Walworth.....	87	87	83	83	4,640	4,437	9,077	9,077	25,191	7,815	2	40	7,857	687,257	70	1,875	689,208
Washington...	84	84	58	58	5,055	4,998	9,991	9,991	18,208	5,285	1	...	5,286	440,937	8	156	440,696
Waukesha.....	119	119	67	67	5,694	5,558	11,252	11,172	17,615	7,104	4	44	7,159	553,746	92	739	554,547
Waupaca.....	129	129	1	1	3,814	3,588	7,402	7,278	14,981	4,620	22	17	4,659	340,880	45	617	341,898
Waushara.....	52	52	73	73	2,165	2,264	4,449	4,449	16,500	8,478	5	16	3,499	211,751	36	612	212,899
Winnebago.....	68	68	72	72	3,852	3,683	7,535	7,535	19,838	4,885	11	40	4,988	391,875	612	2,204	394,774
Wood.....	84	81	5	5	8,880	8,862	1,751	1,684	4,840	865	7	2	8,874	59,823	2	206	59,558
Totals.....	4566	4541	2246	2233	198,844	186,964	385,908	381,879	899,417	248,806	523	1566	245,895	16,243,023	10,519	63,960	16,817,503

TABLE No. III.
SCHOOLS, TEACHERS, WAGES, LIBRARIES, ETC.

COUNTIES.	SCHOOLS, TEACHERS, WAGES, ETC.										LIBRARIES.			
	Number of schools with two departments.	Number of schools with three or more departments.	Number of teachers required to teach the schools.	Number of different persons employed as teachers during the year.	Average wages of male teachers per month.	Average wages of female teachers per month.	Highest wages paid.	Number of schools visited by county superintendent during the year.	Number of different visits made.	Number of addresses or lectures delivered by him.	Number of volumes added during the year.	Amount expended for books during the year.	Whole number of volumes in district libraries.	Cash value of libraries.
Adams	2	1	66	110	\$25 92	\$20 88	\$35 00	63	127	.....	.....	.....	36	\$40 00
Ashland ..	1	1	5	5	60 00	35 00	100 00	2	4	7	.....	\$100 00	.....	100 00
Barron .....	.....	.....	54	77	39 88	31 16	40 00	54	87	.....	.....	.....	.....	.....
Bayfield ..	1	.....	2	2	80 00	25 00	80 00	1	.....	.....	.....	.....	.....	.....
Brown .....	.....	.....	99	110	36 96	27 15	.....	.....	.....	.....	181	79 97	259	148 98
Buffalo	1	3	90	125	42 35	28 07	90 00	75	111	.....	4	56 00	390	521 00
Burnett .....	.....	.....	8	9	32 58	29 66	38 33	8	24	.....	.....	.....	.....	65 00
Calumet	2	2	72	105	44 83	25 59	65 00	59	91	75	5	10 00	182	158 00
Chippewa ..	1	2	89	136	64 13	32 10	136 66	73	138	.....	.....	.....	.....	.....
Clark	2	1	68	114	37 71	30 59	133 83	56	.....	.....	100	50 20	280	252 50
Columbia ..	6	3	165	276	38 79	22 19	96 44	165	317	.....	.....	.....	283	241 00
Crawford ..	1	.....	89	143	31 91	21 83	70 00	62	69	63	.....	.....	46	212 00

TABLE No. III.—*Schools, teachers, wages, libraries, etc.*—continued.

COUNTIES.	SCHOOLS, TEACHERS, WAGES, ETC.										LIBRARIES.			
	Number of schools with two departments.	Number of schools with three or more departments.	Number of teachers required to teach the schools.	Number of different persons employed as teachers during the year.	Average wages of male teachers per month.	Average wages of female teachers per month.	Highest wages paid.	Number of schools visited by county superintendent during year.	Number of different visits made.	Number of addresses or lectures delivered by him.	Number of volumes added during the year.	Amount expended for books during the year.	Whole number of volumes in district libraries.	Cash value of libraries.
Dane—	1	2	138	233	\$30 60	\$24 84	\$38 88	124	280	.....	13	\$20 00	155	\$115 00
1st District	4	3	184	203	39 03	24 77	100 00	114	237	6	.....	.....	756	478 50
Dodge—														
1st District	4	2	100	177	36 44	23 00	65 00	98	174	174	26	1 50	728	646 50
2d District	4	3	118	149	39 30	23 82	120 00	98	91	.....	85	100 00	915	902 00
Door .....	.....	1	40	60	38 23	24 72	65 00	42	81	70	119	60 35	159	125 00
Douglas	2	.....	5	5	75 00	32 50	75 00	5	10	.....	.....	.....	.....	.....
Dunn	4	.....	100	171	34 78	28 13	130 00	58	179	.....	.....	.....	.....	.....
Eau Claire .....	.....	4	86	127	40 92	30 03	180 00	56	199	.....	.....	.....	55	280 00
Fond du Lac	3	8	180	305	37 30	23 73	111 00	192	408	.....	.....	.....	268	150 00
Grant	4	9	247	388	40 50	25 35	129 67	99	135	7	266	188 95	344	433 00
Green	4	4	154	263	37 58	22 01	133 33	.....	.....	.....	97	105 00	613	645 00
Green Lake	6	.....	77	132	33 95	21 93	50 00	68	117	.....	.....	.....	.....	.....
Iowa	3	2	134	208	34 85	22 83	92 50	109	120	.....	.....	.....	.....	.....
Jackson	2	1	78	123	37 81	28 49	123 22	63	104	80	.....	.....	.....	.....

Jefferson	5	151	233	39 90	23 63	150 00	119	232	3	41	85 00	435	701 40
Juneau	2	105	158	44 94	28 05	111 12	84	155	.....	.....	.....	239	345 00
Kenosha	1	61	94	37 43	28 84	50 00	61	154	.....	27	11 00	757	495 00
Kewaunee .....	.....	55	70	32 68	25 75	60 00	47	.....	.....	.....	.....	.....	.....
La Crosse	2	75	113	37 73	27 96	72 00	63	99	6	.....	.....	.....	25 00
La Fayette	6	158	221	35 63	24 15	115 00	44	44	44	.....	.....	.....	.....
Lincoln	1	11	10	51 00	37 00	90 00	9	15	4	.....	.....	.....	.....
Manitowoc	3	131	156	45 72	31 66	150 00	103	184	.....	14	48 18	346	309 00
Marathon	3	68	103	37 47	28 27	50 00	63	20	.....	13	80 10	120	96 75
Marquette	3	50	84	27 86	20 31	50 00	56	101	101	3	8 00	84	74 00
Milwaukee —	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1st dist.	2	44	53	44 62	29 70	85 00	85	69	43	130	.....	863	540 50
2d dist.	2	26	45	43 07	32 16	61 66	28	59	.....	.....	.....	18	5 00
Monroe	5	145	233	38 68	23 27	200 00	106	.....	.....	.....	.....	.....	.....
Oconto	2	51	74	59 11	31 42	120 00	44	130	.....	.....	.....	39	151 50
Outagamie	5	107	176	40 11	25 00	55 00	95	170	.....	.....	.....	.....	.....
Ozaukee	4	67	76	44 08	22 35	140 00	22	37	18	.....	.....	841	917 00
Pepin .....	.....	1	41	35 73	27 41	60 00	41	58	.....	36	10 12	43	19 12
Pierce	1	107	172	39 55	27 50	37 00	93	156	80	588	213 39	873	796 50
Polk	1	59	102	36 17	30 55	72 80	61	109	.....	125	134 00	310	280 00
Portage .....	.....	77	128	33 37	25 04	75 00	70	123	.....	.....	.....	45	55 00
Racine	3	83	123	37 20	25 36	90 00	61	105	10	214	50 00	404	461 20
Richland	2	123	223	30 88	23 34	75 00	124	250	.....	.....	.....	.....	.....
Rock —	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1st dist.	2	89	164	36 11	24 23	70 00	82	160	147	.....	91 20	659	500 00
2d dist.	5	97	174	35 66	24 98	55 00	87	108	.....	.....	.....	1,313	548 00
St. Croix	3	86	165	40 88	30 63	72 32	44	59	.....	28	71 00	141	160 00
Sauk	6	188	278	38 19	26 05	144 44	154	223	.....	18	101 00	1,122	1,234 00
Shawano	1	43	60	34 16	23 15	85 00	11	12	.....	.....	.....	.....	.....
Sheboygan	4	125	195	36 23	25 09	150 00	89	.....	.....	13	50 00	406	307 00
Taylor	1	9	13	45 00	29 94	45 00	8	22	20	.....	.....	.....	.....
Trempealeau	1	91	127	38 45	31 83	90 00	78	124	118	.....	27 25	64	188 00
Vernon	2	150	247	28 93	21 46	80 00	119	106	.....	.....	28 00	6	28 00
Walworth	4	167	272	46 26	25 75	145 00	126	278	.....	1	8 00	173	181 60
Washington	4	113	147	43 47	23 73	111 00	98	21	.....	.....	.....	215	189 00
Waukegan	6	138	218	46 07	23 30	115 00	119	240	.....	.....	.....	239	100 00

TABLE No. III.— continued.

COUNTIES.	SCHOOLS, TEACHERS, WAGES, ETC.										LIBRARIES.			
	Number of schools with two departments.	Number of schools with three or more departments.	Number of teachers required to teach the schools.	Number of different persons employed as teachers during the year.	Average wages of male teachers per month.	Average wages of female teachers per month.	Highest wages paid.	Number of schools visited by county superintendent during the year.	Number of different visits made.	Number of addresses or lectures delivered by him.	Number of volumes added during the year.	Amount expended for books during the year.	Whole number of volumes in district libraries.	Cash value of libraries.
Waupaca	6	4	131	209	\$40 06	\$24 44	\$111 00	70	83	29	2	\$12 00	35	\$150 00
Waushara	4	.....	97	175	29 29	20 07	52 00	92	189	14	98	106 08	108	71 00
Winnebago	2	4	113	187	37 30	25 22	90 00	101	209	.....	.....	.....	.....	.....
Wood	1	.....	83	49	35 50	27 84	50 00	11	11	4	60	28 45	250	80 00
Totals and averages	161	124	5,808	9,146	\$40 48	\$26 35	\$200 00	4,554	7,337	1,130	2,305	\$1,934 04	15,469	\$14,556 65

TABLE No. IV.
SCHOOL HOUSES, SITES, APPARATUS, TEXT BOOKS.
[BY COUNTIES.]

COUNTIES.	Number of school houses in the county.	Number of pupils school houses will accommodate.	Number of sites containing less than one acre.	Number of sites well en- closed.	Number of school houses built of stone or brick.	Number of school houses in good condition.	Number with out-houses in good condition.	Number of school houses properly ventilated.	Number of districts which purchase text-books.	Number of districts which loan text-books to pupils.	Number of districts which sell text-books to pupils.
Adams.....	64	2,564	47	10	.....	44	86	86	23	12	.....
Ashland.....	3	1,180	8	3	.....	3	3	8	1	1	.....
Barron.....	53	1,643	13	4	.....	49	35	4	4	4	.....
Bayfield.....	1	90	1	1	1	1	1	1	1	1	.....
Brown.....	82	5,299	47	37	0	60	50	61	17	11	6
Buffalo.....	76	4,857	41	17	4	60	49	43	2	.....	2
Burnett.....	8	392	4	3	.....	8	8	5	3	2	2
Calumet.....	67	4,289	54	34	8	54	54	53	3	.....	2
Chippewa.....	81	3,205	65	20	.....	73	70	75	23	23	.....
Clark.....	64	2,549	27	21	1	53	46	44	25	20	6
Columbia.....	147	8,525	116	86	12	116	103	104	5	3	2
Crawford.....	88	4,103	57	11	8	51	43	55	3	1	1
Dane, 1st district.....	126	6,381	79	64	30	85	77	79	2	.....	2
Dane, 2d district.....	117	6,882	74	37	30	88	66	81	6	3	.....
Dodge, 1st district.....	99	6,025	85	35	21	83	78	70	3	1	2
Dodge, 2d district.....	91	6,005	79	32	21	66	65	73	3	2	1

TABLE No. IV.—*School Houses, Sites, Apparatus, Text-Books*—continued.

COUNTIES.	Number of school houses in the county.	Number of pupils school houses will accommodate.	Number of sites containing less than one acre.	Number of sites well in-closed.	Number of school houses built of stone or brick.	Number of school houses in good condition.	Number with out-houses in good condition.	Number of school houses properly ventilated.	Number of districts which purchase text-books.	Number of districts which loan text-books to pupils.	Number of districts which sell text-books to pupils.
Door.....	43	2,073	21	13	.....	34	26	35	13	6	8
Douglas.....	8	800	8	.....	.....	2	2	2	1	1	.....
Dunn.....	91	4,896	48	20	.....	68	52	63	8	8	.....
Kau Claire.....	63	3,766	33	19	1	49	40	43	.....	.....	.....
Fond du Lac.....	170	11,407	143	73	21	132	131	139	.....	.....	.....
Grant.....	316	19,799	128	76	36	180	136	163	10	8	5
Green.....	124	8,447	97	55	27	103	80	90	7	1	8
Green Lake.....	71	3,884	52	13	7	54	43	42	2	1	1
Iowa.....	123	7,143	80	43	16	79	54	75	3	1	3
Jackson.....	69	3,395	38	23	2	47	46	43	3	1	2
Jefferson.....	131	8,247	103	53	71	103	89	78	3	2	3
Juneau.....	93	5,188	71	25	1	73	55	70	1	.....	3
Kenosha.....	60	2,339	46	27	3	39	38	35	.....	.....	5
Kewaunee.....	51	3,324	50	21	1	46	43	46	7	2	.....
La Crosse.....	66	3,737	50	23	9	50	43	38	2	6	3
La Fayette.....	121	7,907	67	54	25	80	70	86	15	4	.....
Lincoln.....	10	545	7	2	.....	6	4	6	4	3	5
Manitowoc.....	107	9,788	80	36	9	83	79	65	7	3	.....
Marathon.....	67	3,330	38	19	.....	61	43	47	26	24	2

Marquette.....	56	3,081	43	10	.....	44	33	40	.....	.....	.....	.....
Milwaukee—												
1st dist.....	35	2,788	83	16	9	29	30	30	4	1	.....	.....
2d dist.....	83	2,247	29	19	10	27	29	25	3	.....	4	.....
Monroe.....	128	7,130	103	39	8	96	85	74	8	.....	.....	.....
Oconto.....	46	2,243	23	23	2	40	34	34	9	8	6	.....
Outagamie.....	97	5,389	74	47	6	83	88	67	14	3	10	.....
Ozaukee.....	59	4,971	54	30	34	49	53	45	3	.....	2	.....
Pepin.....	85	2,004	13	4	8	28	23	27	4	1	2	.....
Pierce.....	96	5,074	81	28	1	66	60	57	15	8	5	.....
Polk.....	61	2,495	23	20	1	46	40	35	16	7	3	.....
Portage.....	78	4,888	58	16	.....	60	47	47	8	1	3	.....
Racine.....	77	4,177	73	39	30	53	59	58	2	2	.....	.....
Richland.....	123	6,350	105	25	2	87	64	93	5	1	3	.....
Rock—												
1st dist.....	82	4,416	58	37	35	61	55	57	4	2	2	.....
2d dist.....	87	4,140	67	47	13	72	61	65	8	2	6	.....
St. Croix.....	81	4,080	51	31	8	56	50	60	0	1	1	.....
Sauk.....	168	8,506	126	49	20	113	113	120	17	9	8	.....
Shawano.....	43	1,963	31	0	1	85	26	14	8	5	3	.....
Sheboygan.....	112	7,908	100	42	7	84	88	73	4	.....	4	.....
Taylor.....	8	402	6	2	.....	8	5	8	1	1	1	.....
Trempealeau.....	83	4,760	34	32	4	70	81	40	1	2	1	.....
Vernon.....	143	7,630	113	28	2	94	70	77	2	.....	2	.....
Walworth.....	129	7,593	105	60	31	91	88	83	.....	.....	.....	.....
Washington.....	103	8,476	88	19	47	93	88	79	3	2	1	.....
Waukesha.....	119	8,531	82	50	44	95	90	84	5	3	2	.....
Waupaca.....	103	6,419	83	41	2	83	76	73	9	3	5	.....
Waushara.....	92	4,036	67	20	3	66	61	73	53	34	18	.....
Winnebago.....	101	5,677	81	48	13	75	73	67	8	.....	8	.....
Wood.....	35	1,684	15	8	1	26	16	15	14	11	2	.....
Totals.....	5,159	304,062	3,762	1,787	696	4,011	8,518	8,615	453	244	170	.....

TABLE No. V.
SCHOOL HOUSE PROPERTY.

[BY COUNTIES.]

COUNTIES.	Highest valuation of school house and site.	Cash value of school houses in the county.	Cash value of sites.	Cash value of ap- paratus.
Adams	8,740 00	16,305 00	1,363 00	516 00
Ashland	4,000 00	6,000 00	1,500 00	20 00
Barron	5,090 00	14,601 00	853 00	1,398 00
Bayfield	3,000 00	2,500 00	500 00	.....
Brown	5,000 00	38,231 00	4,230 00	2,137 00
Buffalo	7,000 00	50,495 00	2,112 00	3,135 00
Burnett	1,985 00	2,550 00	815 00	210 00
Calumet	6,500 00	36,575 00	3,858 00	2,355 00
Chippewa	5,000 00	56,170 00	3,635 00	3,067 00
Clark	3,150 00	24,460 00	1,828 00	3,878 98
Columbia	16,500 00	87,065 00	7,852 00	2,905 00
Crawford	5,385 00	19,700 00	1,198 00	2,253 61
Dane—				
1st district	9,000 00	69,140 00	5,809 00	2,653 00
2d district	10,400 00	64,890 95	4,323 00	3,567 90
Dodge—				
1st district	14,020 00	41,845 00	4,819 50	2,204 25
2d district	16,000 00	68,555 00	7,730 00	3,185 00
Door	11,165 00	12,957 00	1,369 00	1,275 00
Douglas	2,000 00	3,300 00	600 00	125 00
Dunn	25,087 00	66,110 00	6,576 00	3,319 00
Eau Claire	15,000 00	63,240 00	9,235 00	1,987 50
Fond du Lac	7,000 00	84,850 00	12,422 00	3,666 50
Grant	16,200 00	158,519 00	10,788 00	5,149 00
Green	33,000 00	93,750 00	7,944 50	2,599 60
Green Lake	3,500 00	32,987 00	2,341 00	732 00
Iowa	19,815 00	48,769 00	3,739 00	2,498 90
Jackson	30,000 00	50,940 00	6,778 00	773 00
Jefferson	15,000 00	118,019 00	9,599 00	4,530 00
Juneau	7,500 00	39,640 00	3,416 00	1,658 00
Kenosha	2,050 00	27,605 00	2,635 00	875 00
Kewaunee	7,600 00	28,505 00	2,700 00	1,705 00
La Crosse	4,050 00	32,097 00	3,444 00	2,036 00
La Fayette	28,000 00	99,890 00	8,905 50	2,604 70
Lincoln	4,000 00	6,550 00	1,072 00	880 00
Manitowoc	40,000 00	109,340 00	13,987 00	5,364 00
Marathon	3,500 00	30,334 25	2,908 00	2,534 00
Marquette	2,200 00	20,135 00	1,068 00	824 25
Milwaukee —				
1st district	13,200 00	33,330 00	4,614 00	2,973 00
2d district	6,500 00	23,965 00	2,850 00	1,276 00
Monroe	25,000 00	66,713 00	6,014 00	2,461 00
Oconto	7,256 00	35,333 00	4,653 00	1,969 00
Outagamie	3,290 00	40,610 00	4,411 00	3,199 50

TABLE No. V—*School House Property* — continued.

COUNTIES.	Highest valuation of school house and site.	Cash value of school houses in the county.	Cash value of sites	Cash value of ap- paratus.
Ozaukee	6,000 00	84,695 00	7,685 00	3,801 50
Pepin	7,250 00	21,940 00	2,140 00	518 12
Pierce	3,000 00	35,630 00	3,894 00	2,128 10
Polk	2,200 00	23,291 12	1,830 00	2,287 00
Portage	2,000 00	24,023 50	1,686 00	1,038 00
Racine	2,500 00	55,275 00	5,682 50	1,715 00
Richland	2,100 00	36,418 00	3,073 10	2,485 00
Rock—				
1st district.....	15,400 00	60,998 98	4,191 00	1,842 00
2d district.....	10,000 00	59,148 00	4,872 25	2,176 50
St. Croix	1,444 00	36,590 00	2,992 00	2,183 00
Sauk	84,000 00	103,705 00	10,740 00	3,918 00
Shawano	2,700 00	14,848 00	921 00	763 55
Sheboygan	14,000 00	39,535 00	5,900 00	2,506 00
Taylor	2,700 00	5,100 00	478 50	201 00
Trempealeau	6,400 00	42,580 00	3,302 00	1,262 43
Vernon.....	10,000 00	43,330 00	3,471 00	3,060 00
Walworth	20,000 00	114,351 00	13,007 50	2,273 50
Washington	7,000 00	81,725 00	11,901 00	4,974 10
Waukesha.....	11,000 00	104,720 87	13,310 00	3,545 00
Waupaca	8,000 00	51,791 00	5,787 00	2,949 00
Waushara	2,075 00	30,570 00	1,929 50	2,180 00
Winnebago	10,000 00	64,560 50	8,436 00	4,160 00
Wood	7,000 00	15,310 00	1,472 00	1,497 00
Totals.....	40,000 00	8,056,176 12	804,290 75	142,783 81

TABLE No. VI.

PRIVATE SCHOOLS NOT INCORPORATED.

[BY COUNTIES.]

COUNTIES.	No. of such schools in the county.	No. which are denominational or parochial.	No. of teachers engaged in such schools.	Average No. of days such schools have been taught.	No. of pupils registered who have not attended district school during year.	Average number in daily attendance.
Adams.....	1	.....	1	85	.....	10
Ashland.....	.....	.....	.....	.....	.....	.....
Barron.....	.....	.....	.....	.....	.....	.....
Bayfield.....	.....	.....	.....	.....	.....	.....
Brown.....	8	8	14	71	401	85
Buffalo.....	4	4	6	100	165	115
Burnett.....	.....	.....	.....	.....	.....	.....
Calumet.....	6	4	7	160	202	184
Chippewa.....	2	2	2	35	10	80
Clark.....	.....	.....	.....	.....	.....	.....
Columbia.....	7	6	6	83	16	67
Crawford.....	.....	.....	.....	.....	.....	.....
Dane, 1st district.....	9	10	10	56	159	176
Dane, 2d district.....	7	7	9	85	116	112
Dodge, 1st district.....	1	1	1	.....	40	.....
Dodge, 2d district.....	29	28	31	63	1,186	700
Door.....	2	.....	2	100	44	11
Douglas.....	.....	.....	.....	.....	.....	.....
Dunn.....	5	5	5	.....	.....	.....
Eau Claire.....	10	8	13	80	75	203
Fond du Lac.....	11	22	36	159	616	665
Grant.....	7	6	12	80	184	.....
Green.....	4	8	4	63	101	66
Green Lake.....	3	.....	3	147	77	50
Iowa.....	1	1	1	.....	.....	.....
Jackson.....	3	2	3	57	55	81
Jefferson.....	17	11	18	57	717	412
Juneau.....	11	5	14	35	82	157
Kenosha.....	4	4	7	143	87	.....
Kewaunee.....	6	6	8	110	225	142
La Crosse.....	5	5	4	80	20	24
La Fayette.....	2	1	3	120	125	100
Lincoln.....	.....	.....	.....	.....	.....	.....
Manitowoc.....	18	18	21	65	740	395
Marathon.....	1	2	3	.....	15	20
Marquette.....	2	2	2	105	.....	60
Milwaukee, 1st district.....	7	7	15	71	340	105
Milwaukee, 2d district.....	6	6	6	.....	200	159
Monroe.....	6	4	8	75	115	160
Oconto.....	2	1	5	100	119	106
Outagamie.....	3	1	4	.....	.....	.....

TABLE No. VI. — *Private Schools not Incorporated* — continued.

COUNTIES.	No. of such schools in the county.	No. which are denominational or parochial.	No. of teachers engaged in such schools.	Average No. of days such schools have been taught.	No. of pupils registered who have not attended district school during year.	Average number in daily attendance.
Ozaukee	12	9	16	.....	.....	.....
Pepin .....	.....	.....	.....	.....	.....	.....
Pierce	4	4	3	40	.....	.....
Polk .....	.....	.....	.....	.....	.....	.....
Portage	3	3	5	142	860	144
Racine	8	7	13	53	385	318
Richland	1	.....	1	42	22	37
Rock, 1st district	3	2	3	94	.....	53
Rock, 2d district	3	2	3	51	12	58
St. Croix	3	2	2	.....	.....	.....
Sauk	9	6	10	48	67	53
Shawano	1	1	1	80	63	25
Sheboygan	18	17	18	59	488	426
Taylor .....	.....	.....	.....	.....	.....	.....
Trempealeau	4	1	1	75	.....	30
Vernon	23	20	14	20	158	92
Walworth	2	1	3	120	15	10
Washington	18	16	18	160	706	753
Waukesha	5	5	3	66	33	76
Waupaca	3	3	5	113	162	8
Waushara	1	.....	1	52	.....	10
Winnebago	9	9	5	51	111	53
Wood .....	.....	.....	.....	.....	.....	.....
Totals	339	298	412	81	8,714	6,513

TABLE No. VII.
FINANCIAL STATISTICS — RECEIPTS.
BY COUNTIES.

COUNTIES.	Money on hand August 31, 1877.	From taxes levied for build- ing and repairing.	From taxes levied for teach- ers' wages.	From taxes levied for ap- paratus and library.	From taxes levied at annual town meetings.	From taxes levied by county superintendents.	From income of state school fund.	From all other sources.	Total amount received dur- ing the year.
Adams	\$1,459 95	\$838 42	\$8,575 75	\$40 80	\$114 12	\$915 87	\$933 65	\$764 39	\$11,599 05
Ashland	1,643 51	.....	.....	.....	1,300 00	407 00	44 28	409 76	3,789 14
Barron	323 25	2,757 45	6,698 58	505 00	7,670 91	482 70	440 17	1,496 88	20,384 56
Bayfield	80 60	.....	.....	.....	.....	.....	98 81	8,018 29	8,197 70
Brown	8,153 89	2,886 18	12,714 54	1,892 81	4,746 78	4,188 41	8,756 02	1,273 42	38,556 40
Buffalo	8,805 60	4,728 48	11,184 15	77 40	2,127 07	3,674 77	2,131 97	4,581 43	37,285 01
Burnett	515 43	359 54	595 90	104 34	133 67	218 97	184 36	90 93	2,503 13
Calumet	5,599 03	2,467 72	12,133 08	134 50	.....	2,268 90	2,490 51	2,185 85	27,279 09
Chippewa	9,170 24	1,363 23	11,898 33	319 05	18,217 29	906 00	1,270 96	9,913 48	49,685 89
Clark	8,024 88	5,776 57	12,581 23	248 34	738 97	2,204 28	1,557 92	6,642 80	38,153 87
Columbia	4,946 31	4,337 60	25,358 53	98 50	1,662 24	3,317 81	8,722 63	5,851 17	48,669 51
Crawford	4,471 06	687 27	9,331 64	340 55	1,436 98	1,813 24	2,081 84	1,370 10	31,890 14
Dane, 1st district	5,770 25	4,398 85	20,076 31	95 00	1,018 30	3,301 60	3,162 67	2,611 50	38,926 81
Dane, 2d district	5,477 11	3,017 07	20,564 96	526 88	858 36	4,234 27	3,571 14	2,287 08	40,475 71
Dodge, 1st district	3,274 30	2,612 67	17,264 74	143 75	1,065 97	2,803 07	2,933 26	2,290 68	33,417 44
Dodge, 2d district	3,667 88	2,827 98	18,149 75	309 70	2,031 75	3,849 08	3,498 75	1,091 89	34,921 79

Door.....	5,927 48	2,000 25	7,649 04	146 44	752 54	697 66	1,108 22	1,390 05	19,680 86
Douglas.....	620 38	216 73	819 29	75 00	2,288 00	1,161 15	2,175 36	30 00	1,870 87
Dunn.....	8,660 04	7,475 29	15,905 37	485 82	6,471 89	1,883 35	1,745 87	1,786 40	39,254 62
Eau Claire.....	7,956 99	5,125 62	25,217 76	252 49	1,065 50	5,123 14	5,627 94	6,689 57	55,832 54
Fond du Lac.....	9,196 84	4,825 60	30,694 98	271 00	1,890 71	6,514 79	6,141 17	5,250 96	56,757 47
Grant.....	11,690 82	5,363 40	50,477 83	677 14	734 83	8,091 43	3,893 25	4,901 48	87,995 32
Green.....	6,343 08	4,501 85	24,168 44	255 82	1,784 83	1,704 28	1,708 71	901 37	47,890 48
Green Lake.....	2,591 10	807 88	11,718 28	68 90	250 00	1,704 28	1,708 71	901 37	19,735 04
Iowa.....	5,080 63	3,190 57	18,093 90	353 00	2,905 90	8,353 09	3,846 39	2,724 81	38,526 76
Jackson.....	8,634 97	8,471 71	12,900 78	159 32	949 15	1,739 91	1,811 91	2,456 63	32,175 18
Jefferson.....	5,949 61	3,809 11	23,841 98	237 66	807 78	5,013 88	4,136 04	3,725 41	46,295 89
Juneau.....	5,005 18	2,470 58	11,694 53	118 36	4,697 83	2,013 88	2,213 89	4,884 73	33,098 71
Kenosha.....	2,656 34	1,839 82	10,351 51	119 38	1,890 00	3,870 18	1,257 63	1,231 69	21,696 72
Kewaunee.....	4,825 95	1,547 00	6,498 17	49 27	1,609 43	2,548 56	2,882 45	151 32	19,690 96
La Crosse.....	4,293 30	1,034 50	13,738 82	404 52	1,160 00	1,741 68	1,764 90	2,247 65	25,385 37
La Fayette.....	5,737 68	4,185 96	24,046 91	153 32	3,014 84	3,408 25	3,216 47	4,776 75	48,540 89
Lincoln.....	2,886 37	283 55	100 00	.....	73 82	.....	84 61	2,268 33	5,150 68
Manitowoc.....	19,526 52	3,189 20	25,255 81	890 50	2,867 39	1,358 81	6,723 11	2,658 19	74,202 58
Marathon.....	1,097 25	3,082 97	7,980 40	158 14	1,209 63	1,173 54	802 21	5,603 15	27,429 38
Marquette.....	1,908 07	430 20	7,566 20	144 56	.....	1,352 20	1,880 87	783 43	13,565 63
Milwaukee, 1st district.....	4,785 85	1,974 09	76,670 07	117 50	1,898 92	2,413 14	2,079 69	1,093 05	27,971 85
Milwaukee, 2d district.....	3,291 02	2,231 44	7,717 58	106 00	24 99	3,022 16	1,606 67	6,095 20	18,992 86
Monroe.....	6,597 84	4,096 09	26,337 48	180 92	149 47	3,997 77	3,169 13	1,243 60	48,378 10
Oconto.....	7,500 62	3,209 00	9,804 21	4 50	1,052 36	1,087 28	8,911 93	7,869 91	35,289 81
Outagamie.....	6,804 11	2,378 82	14,350 67	287 64	663 19	4,012 86	8,113 11	1,822 01	38,430 41
Ozaukee.....	3,428 99	1,953 24	13,999 36	274 67	2,646 27	2,038 50	2,908 00	971 89	28,693 40
Pepin.....	3,846 57	2,017 50	6,708 53	15 00	439 52	757 41	823 01	935 58	15,563 12
Pierce.....	8,068 73	3,089 90	19,601 24	670 14	320 61	1,716 62	2,257 95	3,889 15	37,001 53
Polk.....	4,734 85	3,687 32	9,903 99	128 88	1,286 39	792 47	722 59	2,408 17	28,560 66
Portage.....	3,837 68	2,202 27	11,393 69	70 60	331 69	1,277 46	1,487 67	3,087 72	23,608 84
Racine.....	4,082 70	2,070 08	12,294 66	57 35	1,959 10	2,503 97	2,203 21	1,983 16	28,740 54
Richland.....	6,325 97	2,473 91	12,995 48	112 07	244 41	3,731 02	3,174 38	3,296 56	32,352 70
Rock, 1st district.....	5,347 81	1,406 23	15,232 72	169 50	571 10	3,329 54	1,930 34	2,279 20	30,357 08
Rock, 2d district.....	5,742 66	1,511 51	17,296 51	61 00	.....	3,907 25	1,610 44	4,431 44	34,530 81
St. Croix.....	6,528 35	3,603 98	16,047 16	68 40	2,346 40	940 12	1,637 67	1,739 68	31,044 35
Sauk.....	8,664 51	5,634 73	34,069 38	490 69	300 00	4,538 69	4,273 09	3,068 70	61,639 78

TABLE No. VII.— *Financial Statistics — Receipts — continued.*

COUNTIES.	Money on hand August 31, 1877.	From taxes levied for building and repairing.	From taxes levied for teachers' wages.	From taxes levied for apparatus and library.	From taxes levied at annual town meetings.	From taxes levied by county supervisors.	From income of state school fund.	From all other sources.	Total amount received during the year.
Shawano	\$3,694 77	\$709 83	\$4,305 75	\$10 00	\$750 81	\$553 61	\$673 82	\$940 19	\$9,934 96
Sheboygan	5,475 10	1,979 83	32,273 37	88 22	1,495 86	3,903 08	4,597 97	3,007 18	42,776 53
Taylor	455 21	892 63	1,369 00	.....	456 87	.....	77 80	3,243 51	6,083 03
Trempealeau	8,237 05	3,863 70	17,209 97	161 53	1,085 99	2,302 75	3,388 24	6,533 28	41,883 65
Vernon	6,972 39	2,882 94	17,684 51	499 15	869 13	3,474 91	3,941 91	2,312 64	38,237 39
Walworth	6,784 94	3,334 18	43,515 89	155 80	100 00	3,552 35	3,338 15	3,585 64	63,413 73
Washington	2,407 47	4,260 14	15,008 42	198 80	1,399 90	6,694 91	4,112 44	2,293 00	37,265 03
Waukesha	7,338 49	6,891 87	30,637 49	641 00	291 35	9,925 97	4,243 50	6,313 06	64,113 73
Waupaca	5,589 39	3,323 88	21,493 42	287 77	614 92	2,768 26	2,773 58	1,964 82	37,741 35
Waushara	3,518 70	2,445 19	8,040 94	221 18	451 25	2,743 20	1,856 65	1,533 82	31,450 93
Winnebago	8,639 50	5,185 88	20,962 83	208 14	301 86	4,128 17	3,533 04	2,386 04	51,121 06
Wood	1,822 29	885 01	4,034 11	.....	573 77	99 59	277 58	1,507 31	8,946 26
Totals	341,121 30	181,939 13	934,934 40	15,224 15	82,009 89	161,867 83	155,965 96	181,191 37	3,096,073 63

TABLE No. VIII.
FINANCIAL STATISTICS — DISBURSEMENTS.
By COUNTIES.

COUNTIES.	For building and repairing.	For apparatus and library.	For services of male teachers.	For services of female teachers.	For old indebtedness.	For furniture, registers and records.	For all other purposes.	Total amount paid out during the year.	Money on hand August 31, 1877.
Adams	\$359 86	\$136 16	\$2,631 45	\$5,485 26	\$291 86	\$16 21	\$926 11	\$10,414 09	\$1,816 69
Ashland	156 60	.....	2,050 50	290 00	.....	268 81	557 57	3,813 47	1,428 04
Barron	5,839 30	683 60	3,516 54	3,559 58	572 44	385 90	2,384 34	16,473 02	4,657 33
Bayfield	100 55	.....	800 00	150 00	1,681 73	.....	235 58	2,967 86	209 84
Brown	2,734 84	490 68	9,605 32	1,717 42	3,010 09	465 23	2,906 19	53,400 78	6,765 76
Buffalo	6,468 62	181 65	1,047 25	6,508 15	632 03	1,420 14	2,795 18	84,017 33	7,155 57
Burnett	229 23	114 15	843 00	821 00	61 00	11 75	114 26	1,697 89	805 74
Calumet	3,335 06	112 40	7,938 40	8,098 25	501 41	183 09	2,172 47	22,436 07	4,834 02
Chippewa	2,761 63	372 48	10,542 07	14,119 76	2,627 68	552 04	4,768 76	35,746 89	13,945 59
Clark	7,363 95	417 40	5,473 10	10,626 40	2,803 01	949 23	2,724 26	30,587 87	7,786 85
Columbia	4,064 97	73 30	13,334 39	18,276 27	2,984 98	773 11	5,736 19	43,996 43	4,942 60
Crawford	1,628 58	384 86	5,966 79	7,326 90	718 69	307 97	1,434 35	15,431 23	4,028 81
Dane, 1st district	2,123 20	125 31	12,242 12	12,871 60	478 80	811 25	3,942 64	31,018 90	6,311 30
Dane, 2d district	3,167 00	40 00	11,193 50	16,196 01	866 67	853 18	4,415 40	35,666 26	4,909 45
Dodge, 1st district	2,860 33	67 99	10,708 50	10,667 50	475 67	142 93	3,960 90	28,933 87	3,433 57
Dodge, 2d district	3,026 88	455 85	10,723 88	13,326 78	768 27	1,036 56	3,415 67	32,753 54	2,578 37

TABLE No VIII.—*Financial Statistics — Disbursements — continued.*

COUNTIES.	For building and repairing.	For apparatus and library.	For service of male teachers.	For service of female teachers.	For old indebtedness.	For furniture, register and records.	For all other purposes.	Total amount paid out during the year.	Money on hand August 31, 1876.
Door.....	\$3,408 45	\$188 40	\$4,201 05	\$4,089 21	\$468 59	\$209 09	\$1,799 52	14,259 81	5,421 87
Douglas.....	26 50	15 70	750 00	542 67	65 00	1 65	199 45	1,600 97	269 90
Dunn.....	4,773 71	298 00	8,698 50	13,781 13	1,167 11	815 11	3,128 53	33,604 23	7,126 90
Eau Claire.....	7,121 04	169 00	10,403 35	17,875 55	3,570 67	536 30	5,229 73	44,704 64	10,627 00
Fond du Lac.....	8,353 84	352 10	14,291 75	25,520 25	1,219 60	734 09	4,566 08	47,880 04	9,615 94
Grant.....	5,475 60	1,146 17	22,947 90	33,309 12	4,247 64	1,190 75	8,628 59	75,935 77	12,069 55
Green.....	2,504 17	217 54	18,640 00	16,859 68	1,945 78	416 66	5,403 96	40,987 79	9,403 89
Green Lake.....	847 66	120 85	5,076 47	7,967 24	435 96	196 50	2,148 71	16,798 89	2,941 05
Iowa.....	6,136 79	193 78	9,063 00	14,550 34	413 23	934 90	3,239 24	39,236 24	4,929 50
Jackson.....	4,866 20	106 78	5,928 25	11,769 75	815 84	230 00	3,543 15	27,251 92	4,924 21
Jefferson.....	8,871 79	359 22	7,489 00	17,097 50	528 65	406 85	5,298 10	41,233 26	6,595 65
Juneau.....	7,804 55	67 62	18,647 50	12,198 47	453 85	216 17	2,617 54	30,843 20	2,746 51
Kenosha.....	2,109 61	33 90	5,684 09	7,575 87	498 42	841 16	2,005 19	17,686 02	2,921 17
Kewaunee.....	2,095 55	70 00	5,814 03	4,945 20	88 45	441 81	1,464 42	15,009 87	4,888 80
La Crosse.....	1,845 40	2 60	9,439 50	6,816 94	288 34	861 29	2,311 72	20,565 80	4,819 57
La Fayette.....	5,294 35	88 00	14,417 23	16,232 77	626 61	741 08	5,651 22	43,051 22	5,488 87
Lincola.....	1,961 05	.....	1,665 00	1,006 75	452 00	92 78	5,471 47	5,649 02	1,879 97
Manitowoc.....	4,212 00	406 49	28,549 61	15,723 27	352 53	1,239 03	5,876 32	56,484 27	17,718 50
Marathon.....	4,831 66	344 34	6,904 86	0,065 62	1,124 82	534 27	4,109 79	22,297 17	8,096 39

Marquette	1,065 92	145 50	2,689 17	6,089 23	189 78	83 08	1,251 77	11,417 35	2,148 28
Milwaukee, 1st district.....	531 75	90 90	5,860 64	7,888 00	522 20	104 86	1,974 55	17,071 87	4,899 98
Milwaukee, 2d district.....	2,705 79	19 00	5,931 50	4,465 50	1,392 08	91 95	1,561 05	16,370 95	2,741 09
Monroe	6,079 81	254 77	11,842 82	18,317 67	958 21	408 82	4,170 14	42,031 75	7,846 85
Oconto	2,124 02	31 85	6,801 12	6,806 55	619 78	275 88	5,705 51	25,364 71	9,925 10
Outagamie	2,841 55	223 26	6,567 38	13,422 00	1,202 99	670 76	2,822 62	27,250 56	6,179 85
Ozaukee	2,448 11	145 83	15,659 00	4,061 00	1,125 60	701 52	2,047 15	25,933 89	2,865 86
Pepin	3,370 65	.....	2,995 00	5,026 00	650 60	428 13	1,108 13	13,578 51	1,984 61
Pierce	3,784 94	461 45	9,814 88	10,331 75	778 44	547 42	2,870 88	28,887 99	8,875 76
Polk	3,795 11	451 56	3,726 00	6,764 01	1,210 65	865 52	1,739 87	18,402 16	5,158 50
Portage	2,812 26	112 90	4,493 25	9,163 31	374 16	213 83	1,401 63	18,212 64	4,395 70
Racine	3,601 85	52 92	5,683 75	12,734 75	145 28	323 73	3,366 65	26,572 87	8,756 67
Richland	3,511 07	203 95	8,702 21	12,087 55	504 50	287 00	2,528 18	27,825 35	6,069 26
Rock, 1st district	1,786 07	1,191 57	6,757 35	11,877 87	168 78	170 44	3,497 89	25,449 97	4,956 83
Rock, 2d district	2,211 00	204 75	6,666 87	14,058 82	414 68	631 44	4,439 87	28,627 73	5,238 67
St. Croix	5,337 90	180 31	8,279 50	10,412 74	883 60	493 52	2,732 94	25,946 36	5,046 89
Sauk	4,499 63	376 43	10,408 48	23,483 56	1,793 06	1,067 36	5,364 12	52,993 54	8,846 24
Shawano	1,054 10	80 65	2,782 05	2,942 00	486 25	54 50	566 59	7,534 54	2,933 56
Sheboygan	2,770 98	185 95	15,281 90	12,910 24	1,207 03	512 54	3,025 29	36,496 97	6,843 11
Taylor	1,162 72	25 00	180 00	1,585 80	736 92	277 13	1,545 83	5,040 47	181 38
Trempealeau	3,123 53	77 70	9,687 41	10,449 06	824 84	737 25	4,556 54	29,574 43	12,809 22
Vernon	2,680 98	514 52	10,629 18	12,204 20	942 07	1,295 80	4,042 83	32,309 65	5,927 76
Walworth	3,011 24	279 99	17,927 98	25,925 52	1,038 82	675 23	7,124 18	55,089 08	7,836 02
Washington	3,232 16	194 67	13,844 32	10,216 31	1,748 45	592 29	3,203 24	33,031 44	4,233 64
Waukeena	14,349 94	158 84	15,432 95	20,519 03	1,052 26	1,154 88	6,194 06	55,131 44	8,240 96
Waupaca	3,546 80	235 19	7,838 88	14,607 46	670 47	404 98	2,237 87	31,307 72	6,784 28
Waushara	2,740 10	236 95	5,009 00	9,289 95	90 45	202 45	1,937 26	19,831 19	1,599 19
Winnebago	4,898 71	167 84	9,854 00	15,854 14	1,661 45	501 32	4,210 55	35,827 83	8,203 85
Wood	542 15	14 26	1,622 00	2,780 23	946 49	211 19	607 09	6,603 51	2,341 73
Totals	\$210,054 47	\$14,155 97	\$535,545 60	\$682,789 00	\$61,462 10	\$29,673 37	\$202,946 57	\$1,768,024 47	\$352,528 36

TABLE No. IX.
TEXT-BOOKS.

COUNTIES.	SPELLERS.				READERS.				ARITHMETICS.				GEOGRAPHIES.						
	Sanders.	Sanders' Union.	McGuffey's.	National.	Willson's.	Sanders.	Sanders' Union.	McGuffey's.	New American.	National.	Ray's.	Robinson's.	Davies.	Thompson's.	Montleith & McNally's.	Mitchell's.	Cornell's.	Guyot's.	Montleith's.
Adams	25	23	2	15	22	41	1	18	1	10	37	1	4	1	8	22	17	1	20
Ashland	16	16	8	1	5	13	1	13	1	16	8	8	4	4	1	16	11	1	1
Barron	1	1	80	74	4	1	1	82	1	43	12	1	75	1	1	26	11	1	1
Bayfield	4	4	3	8	4	1	1	4	3	4	1	1	75	1	1	26	11	1	1
Brown	31	31	24	24	24	24	24	4	3	84	17	33	9	9	1	1	8	1	74
Buffalo	7	6	5	5	5	8	8	6	6	2	15	11	11	11	8	1	7	1	36
Burnett	83	24	17	17	67	33	33	6	6	8	102	4	4	4	12	62	26	1	14
Calumet	43	10	13	13	44	6	6	6	6	8	8	102	4	4	12	62	26	1	7
Chippewa	101	3	14	14	89	4	4	23	13	39	38	14	14	20	18	4	44	1	4
Clark	89	8	14	5	74	4	4	23	13	76	19	11	11	11	11	86	44	1	59
Columbia																			
Crawford																			
Dane—																			
1st district....																			
2d district....																			

TABLE No. IX. — *Text-Books* — continued.

COUNTRIES.	SPELLERS.						READERS.				ARITHMETICS.				GEOGRAPHY.				
	Banders'.	Banders' Union.	McGuffey's.	National.	Willson's.	Banders'.	Banders' Union.	McGuffey's.	New American.	National.	Ray's.	Robinson's.	Davies'.	Thompson's.	Monteith and McNally's.	Mitchell's.	Cornell's.	Guyot's.	Monteith's.
Rock, 1st dist....	2	36	26	5	...	...	38	11	...	5	49	43	8	1	...	7	48	...	14
Rock, 2d dist....	7	33	27	6	...	2	44	8	...	9	31	41	5	9	4	19	39	...	16
St. Croix.....	56	...	4	8	...	33	...	...	...	81	2	28	19	...	28	...	...	...	40
Sauk.....	14	88	2	27	...	24	86	...	...	36	13	71	78	...	24	10	...	17	49
Shawano.....	6	1	1	4	...	1	...	2	...	5	3	10	3	...	2	7	...	1	1
Sheboygan.....	87	...	7	9	...	55	15	...	...	24	2	28	66	...	82	16	...	...	18
Taylor.....	...	8	...	...	...	...	6	...	...	...	...	8	2	...	...	5	...	...	...
Trempealeau...	7	...	...	60	...	3	...	...	...	68	...	8	60	5	56	...	...	...	...
Vernon.....	44	11	59	7	...	39	11	67	...	8	127	1	2	...	51	...	1	1	69
Walworth.....	...	111	...	5	...	...	108	1	...	5	...	123	1	...	...	78	14	7	17
Washington...	32	5	9	...	...	69	7	12	...	3	50	47	23	...	12	...	7	...	53
Waukesha.....	93	10	2	9	...	72	2	...	...	9	12	36	4	56	...	27	50	1	8
Waupaca.....	63	7	4	5	2	20	12	10	...	15	12	10	13	42	8	5	...	13	23
Wausara.....	...	70	...	...	...	...	82	...	...	...	8	43	...	...	...	43	40	...	...
Winnebago...	57	...	24	...	...	58	...	20	...	...	14	65	...	...	86	8	...	...	16
Wood.....	6	7	...	6	...	...	...	2	3	20	3	3	18	...	...	17	7	...	...
Totals.....	2,096	743	558	565	116	1,569	903	541	45	791	1,491	1,543	838	461	831	856	676	59	1,154

TABLE No. IX.—*Text-Books*—continued.

COUNTIES.	HISTORY U. S.				GRAMMAR.				PHYSIOLOGY.			ALGEBRA.		
	Bwinton.	Willard.	Goodrich.	Barnes' Brief.	Clark.	Bwinton.	Harvey.	Pinneo.	Karl.	Cutter.	Steele.	Davies.	Robinson.	Ray.
Adams.....	2	1	15	15	14	8	3		14					
Ashland.....				1					1				1	
Barron.....														
Bayfield.....		1				1								
Brown.....	9	15	6			6			11					
Buffalo.....		1		36	57	5				1			2	
Burnett.....	1			2	4	2								
Calumet.....	27	3	2	2	6	21	11		4		2	2	1	
Chippewa.....														
Clark.....	4			9	5	7			10				3	
Columbia.....	10		53	31	26	14			37	8	3	3	17	1
Crawford.....														
Dane, 1st district.....	10		35	3	21	7	4	4	44	2			9	1
Dane, 2d district.....	39			86	26	27	4		54	1		2	15	2
Dodge, 1st district.....			64		38				43	20			8	30
Dodge, 2d district.....	9	14	8	19	61	8			10		3		5	2
Door.....			19		1			7	13					2

TABLE No. IX. — *Text-Books*—continued.

COUNTIES.	HISTORY U. S.				GRAMMAR.				PHYSIOLOGY.		ALGEBRA.			
	Swinton.	Willard.	Goodrich.	Barnes' Brief.	Clark.	Swinton.	Harvey.	Pinneo.	Kerl.	Cutler.	Steele.	Davies.	Robinson.	Ray.
Douglas.....	33	.....	2	4	85	7	.....	.....	37	.....	.....	3	1	2
Dunn.....	7	.....	9	8	11	10	7	.....	2	.....	.....	.....	6	1
Eau Claire.....	5	.....	72	24	10	.....	26	.....	98	18	1	.....	2	4
Fond du Lac.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Grant.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Green.....	18	.....	20	.....	7	23	10	.....	.....	4	2	.....	2	9
Green Lake.....	13	.....	80	.....	36	.....	.....	.....	28	.....	.....	.....	15	.....
Iowa.....	13	.....	7	14	13	34	10	15	22	2	.....	1	3	.....
Jackson.....	13	1	.....	4	24	4	2	2	7	.....	.....	1	8	.....
Jefferson.....	11	4	28	16	55	16	.....	.....	14	2	1	6	4	.....
Juneau.....	.....	.....	15	87	11	.....	.....	7	37	8	1	2	9	.....
Kenosha.....	11	.....	17	.....	.....	12	.....	.....	.....	.....	.....	.....	1	.....
Kewaunee.....	1	.....	10	.....	.....	.....	.....	11	5	.....	.....	1	.....	.....
La Crosse.....	10	.....	3	4	26	1	2	13	.....	3	.....	2	3	.....
La Fayette.....	8	.....	48	11	.....	12	10	.....	81	8	.....	.....	4	6
Lincoln.....	1	.....	.....	.....	.....	.....	7	.....	.....	.....	.....	.....	.....	.....
Manitowoc.....	20	.....	21	7	6	9	11	13	30	.....	1	1	1	1
Marathon.....	18	.....	4	5	16	.....	20	.....	.....	.....	.....	2	.....	.....
Marquette.....	.....	.....	22	.....	21	.....	.....	.....	11	.....	.....	.....	.....	.....

	5	2	12	7	2	3	5	4	2	3	10	4	2	3	8	1	...
Milwaukee, 1st district.....	5	2	12	7	2	3	5	4	2	3	10	4	2	3	8	1	...
Milwaukee, 2d district.....	7	7	18	29	8	8	17	29	1	5	29	4	1	1	1	2	1
Monroe.....	4	3	28	15	6	3	10	4	5	3	4	6	5	5	2	12	1
Oconto.....	3	1	2	3	3	3	19	9	8	6	6	4	1	1	1	2	...
Outagamie.....	...	...	30	26	...	2	8	...	...	...	...	...	...	...	...	...	...
Ozaukee.....	9	3	8	...	...	2	...	...	...	...	...	...	...	...	...	...	...
Pepin.....	5	...	...	1	3	2	...	...	...	...	...	...	...	...	...	...	...
Pierce.....	...	...	23	14	...	...	...	...	...	...	...	...	...	...	...	...	...
Polk.....	2	5	11	7	2	2	...	...	...	...	...	...	...	...	...	...	...
Portage.....	2	15	12	14	...	15	...	...	...	...	...	...	...	...	...	...	...
Racine.....	18	18	...	18	2	2	...	...	...	...	...	...	...	...	...	...	...
Richland.....	26	43	...	2	10	...	...	...	...	...	...	...	...	...	...	...	...
Rock, 1st district.....	8	...	23	9	5	10	...	...	...	...	...	...	...	...	...	...	...
Rock, 2d district.....	20	...	19	1	11	19	14	4	...	...	...	...	...	...	...	...	...
St. Croix.....	2	15	7	6	...	...	...	...	...	...	...	...	...	...	...	...	...
Sauk.....	30	...	35	17	43	28	15	...	...	...	...	...	...	...	...	...	...
Shawano.....	6	...	1	8	3	5	...	...	...	...	...	...	...	...	...	...	...
Sheboygan.....	3	...	11	43	13	2	5	...	...	...	...	...	...	...	...	...	...
Taylor.....	2	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Trempealeau.....	13	...	2	10	36	14	...	...	...	...	...	...	...	...	...	...	...
Vernon.....	41	...	4	11	...	12	...	...	...	...	...	...	...	...	...	...	...
Walworth.....	51	...	15	6	13	8	3	...	...	...	...	...	...	...	...	...	...
Washington.....	1	...	55	2	88	6	...	...	...	...	...	...	...	...	...	...	...
Waukesha.....	37	9	41	...	35	11	2	...	...	...	...	...	...	...	...	...	...
Waupaca.....	8	...	19	...	12	...	3	...	...	...	...	...	...	...	...	...	...
Waushara.....	4	...	39	...	15	...	...	...	...	...	...	...	...	...	...	...	...
Winnebago.....	6	...	15	...	11	4	...	...	...	...	...	...	...	...	...	...	...
Wood.....	11	...	...	...	11	4	...	...	...	...	...	...	...	...	...	...	...
Totals.....	607	70	984	500	912	381	228	194	1,161	119	10	54	232	78	...	...	...

TABLE NO. X.
SPECIAL STATISTICS OF SCHOOL ATTENDANCE, ETC.

COUNTIES.	Number of children between 4 and 7 years of age in the county.	Number of children between 7 and 15 years of age in the county.	Number of persons between 15 and 20 years of age in the county.	Number of children between 4 and 7 years of age who have attended school.	Number of children between 7 and 15 years of age who have attended school.	Number of persons between 15 and 20 years of age who have attended school.	Number incapacitated for instruction from defect of vision.	Number incapacitated for instruction from defect of hearing.	Number incapacitated for instruction from defect of intellect.
Adams.....	551	1,242	664	401	1,129	436	1	6	6
Ashland.....	98	130	86	73	1,105	23	1	.....	1
Barron.....	360	688	259	216	574	141	.....	.....	.....
Bayfield.....	110	102	70	.....	.....	.....	.....	.....	.....
Brown.....	2,459	4,412	2,373	1,854	3,448	651	4	10	13
Buffalo.....	1,576	8,104	1,270	744	2,866	594	2	7	8
Burnett.....	171	247	98	48	164	57	.....	1	1
Calumet.....	1,694	8,039	1,581	848	2,266	542	8	3	4
Chippewa.....	1,347	2,092	889	863	1,785	360	1	4	4
Clark.....	771	1,826	692	366	1,203	329	3	8	1
Columbia.....	1,874	4,148	2,403	1,253	3,623	1,585	3	9	7
Crawford.....	1,196	2,417	1,330	741	2,026	818	4	5	4
Dane — 1st District.....	1,634	3,371	1,953	1,017	2,760	990	3	6	11
Dane — 2d district.....	1,911	4,039	2,793	1,054	3,223	1,357	7	9	14
Dodge — 1st District.....	1,681	3,619	2,197	928	2,749	1,023	1	1	10
Dodge — 2d district.....	2,215	4,027	2,451	920	1,210	383	2	5	9
Doof.....	1,086	1,663	755	434	1,210	435	1	8	7

TABLE No. X.—*Special Statistics of School Attendance, etc.*—continued.

COUNTIES.	Number of children between 4 and 7 years of age in the county.	Number of children between 7 and 15 years of age in the county.	Number of persons between 15 and 20 years of age in the county.	No. of children between 4 and 7 years of age who have attended school.	No. of children between 7 and 15 years of age who have attended school.	No. of persons between 15 and 20 years of age who have attended school.	Number incapacitated for instruction from defect of vision.	Number incapacitated for instruction from defect of hearing.	Number incapacitated for instruction from defect of intellect.
Sheboygan	2,745	5,253	3,254	1,542	4,116	1,270	5	20	14
Taylor	126	177	70	105	151	27	1	2	.....
Trempealeau	1,585	3,053	1,714	748	2,186	876	3	8	3
Vernon	2,366	4,469	2,299	1,195	3,522	1,509	.....	6	14
Walworth	1,988	4,287	2,815	1,285	3,872	1,702	.....	7	10
Washington	2,477	4,209	2,615	1,398	3,165	753	2	10	4
Waukesha	2,504	4,906	3,187	1,495	4,006	1,612	.....	5	10
Waupaca	1,772	3,235	1,860	911	2,932	933	.....	8	16
Waushara	1,195	2,188	1,489	662	1,884	961	1	4	6
Winnebago	1,616	3,418	2,231	781	2,518	868	1	2	6
Wood	526	809	363	204	668	116	.....	2	2
Totals	92,745	178,763	102,561	50,442	142,454	47,763	137	317	464

TABLE No. XI.

NUMBER OF CERTIFICATES ISSUED.

COUNTIES.	MALE TEACHERS.			FEMALE TEACHERS.			Total.
	1st Grade.	2d Grade.	3d Grade.	1st Grade.	2d Grade.	3d Grade.	
Adams		4	21		1	57	83
Ashland							
Barron		2	22		3	48	70
Bayfield			2			2	4
Brown							
Buffalo	2	9	56		1	70	137
Burnett			3			7	10
Calumet	8		27		1	54	85
Chippewa	2	5	36		2	101	146
Clark	2	6	22	1	6	59	96
Columbia	2	12	119		7	250	390
Crawford	3		33	1	1	68	106
Dane, 1st district	3	12	90	4	14	113	235
Dane, 2d district	3	8	67	4	11	109	202
Dodge, 1st district	2	23	50	3	16	98	193
Dodge, 2d district	5	7	20	1	3	68	104
Door		1	25		1	28	55
Douglas					1	8	9
Dunn	5	2	54		5	97	163
Eau Claire	3	1	40	1	2	124	171
Fond du Lac	4	30	90	3	70	125	323
Grant	9	14	84	1	8	257	373
Green	1	5	76		5	106	198
Green Lake	4	7	25	6	10	80	133
Iowa		4	43		1	123	170
Jackson	2	1	34	3	7	107	154
Jefferson	7	9	76		13	170	275
Juneau	3	7	39		4	113	166
Kenosha	3	4	27		6	59	99
Kewaunee		5	30		1	32	68
La Crosse	2	7	47	1		54	111
La Fayette	5	6	80	3	11	117	223
Lincoln	1		3			9	13
Manitowoc	1	2	81	1	2	61	143
Marathon	1	2	37			44	84
Marquette		4	6	2	11	46	69
Milwaukee, 1st district	6	4	13		9	41	73
Milwaukee, 2d district	1		19		1	27	43
Monroe	1	17	59		2	151	230
Oconto	2	2	19		5	43	70
Outagamie		4	40			81	125
Ozaukee	2	2	52			25	81
Peplin	2	3	13		9	47	79
Pierce	12	12	54		9	176	253
Polk	3	2	23	3	8	49	83
Portage		5	23		3	99	140
Racine	3	3	35		13	87	141

TABLE No. XI.—*Number of Certificates Issued*—continued.

COUNTIES.	MALE TEACHERS.			FEMALE TEACHERS.			Total.
	1st Grade.	2d Grade.	3d Grade.	1st Grade.	2d Grade.	3d Grade.	
Richland	4	11	64	2	16	145	242
Rock, 1st district	1	9	42	1	11	124	188
Rock, 2d district	1	5	36	1	6	78	127
St. Croix	1	4	69	2	156	232	332
Sauk	1	18	1	1	28	49	49
Shawano	2	4	65	121	192	15	15
Sheboygan	1	4	44	2	78	128	128
Taylor	5	6	68	107	186	186	186
Trempealeau	6	4	70	2	7	149	238
Vernon	2	4	38	57	102	102	102
Walworth	5	4	47	1	4	160	221
Washington	2	2	28	1	4	126	136
Waukesha	5	6	35	9	181	185	185
Waupaca	4	6	45	8	115	174	174
Waushara	2	4	18	87	53	53	53
Winnebago	2	4	45	8	115	174	174
Wood	2	4	18	87	53	53	53
Totals	140	838	2,555	47	358	5,421	8,859

TABLE No. XII.
TEACHERS' INSTITUTES.

COUNTIES.	Where held.	By Whom Conducted.	When Held.
Adams	Friendship	D. McGregor	Oct. 25
Barron	Rice Lake	J. B. Thayer	Oct. 1
Brown	West De Pere	A. A. Spencer	Sept. 8
Buffalo	Alma	A. Earthman	Aug. 27
Calumet	Chilton	Graham, Walker & Min- aghan	Aug. 18
Chippewa	Chippewa Falls	J. B. Thayer	Aug. 20
Clark	Greenwood	J. B. Thayer	Aug. 13
Columbia	Portage	D. McGregor	April 2
Crawford	Mt. Sterling	D. McGregor and A. F. North	Sept. 8
Dane, 1st dist.	San Prairie	D. McGregor	Mch 19
Dane, 2d dist.	Oregon	R. Graham	Mch 19
Dodge, 1st dist.	Juneau	R. Graham	Apr 10
Dodge, 2d dist.	Horicon	A. Salisbury	Oct. 1
Door	Sturgeon Bay	A. Salisbury	Sept. 24
Dunn	Menomonie	J. B. Thayer	Apr 2
Eau Claire	Augusta	J. B. Thayer	Mch 26
Eau Claire	Eau Claire	Parker and Reynolds ..	Aug. 8
Grant	Platteville	Geo. Beck and G. M. Guernsey	Aug. 18
Grant	Bloomington	D. McGregor	Oct. 23
Green	Albany	N. C. Twining	Aug. 20
Green Lake	Dartford	R. Graham	Sept. 25
Iowa	Dodgeville	D. McGregor	Apr. 9
Iowa	Arena	D. McGregor	Oct. 15
Jackson	Black River Falls ..	Smith and De La Matyr ..	Aug. 20
Jefferson	Fort Atkinson	A. Salisbury	Mch 19
Juneau	Wonewoc	D. McGregor	Mch 26
Juneau	Elroy	D. McGregor and O. L. Frawley	Aug. 13
Kenosha	Kenosha	A. Salisbury	Aug. 27
Kewaunee	Kewaunee	R. Graham	Oct. 15
La Crosse	West Salem	J. B. Thayer	Oct. 8
La Fayette	Shullsburg	D. McGregor	Apr 16
La Fayette	Darlington	J. H. Terry and H. Jane ..	Aug. 20
Manitowoc	Manitowoc	R. Graham	Aug. 27
Marathon	Wausau	R. Graham	Sept. 8
Marquette	Westfield	A. Salisbury	Apr. 9
Marquette	Packwaukee	R. Graham	Sept. 24
Monroe	Sparta	R. Graham	Apr. 16
Oconto	Oconto	R. Graham	Oct. 8
Outagamie	Appleton	H. Barns and R. H. Schmidt	Aug. 18
Ozaukee	Port Washington ..	C. F. Viebahn and Chas. Lau	Aug. 20
Pepin	Durand	J. B. Thayer	Apr. 9
Pepin	Durand	Earthman and Miller ..	Aug. 20
Pierce	Rock Elm Center ..	J. B. Thayer	Mch 6
Polk	St. Croix Falls	J. B. Thayer	Sept. 10
Portage	Stevens' Point	A. J. Hutton and J. K. McGregor	Aug. 6
Racine	Rochester	A. Salisbury	8 pt. 10
Richland	Richland Center ..	A. Salisbury	Apr. 23
Richland	Richland Center ..	Salisbury and Johnson ..	Aug. 13

TABLE NO. XII. — *Teachers' Institutes* — continued.

COUNTIES.	Where Held.	By Whom Conducted.	Where Held.
Rock, 1st dist.....	Evansville.....	D. McGregor.....	Aug. 27
Rock, 2d dist.....	Milton	A. Salisbury.....	Mch 26
Rock, 3d dist.....	Clinton.....	A. Salisbury.....	Aug. 20
St. Croix	New Richmond...	J. B. Thayer.....	Mch 19
St. Croix	New Richmond...	J. B. Thayer and F. D. Ensign.....	Aug. 27
Sauk.....	Spring Green.....	A. Salisbury.....	Apr. 9
Sauk.....	Baraboo.....	A. Earthman	Aug. 6
Sheboygan	Plymouth	L. D. Harvey and W. J. Brier	Aug. 18
Trempealeau	Trempealeau	J. B. Thayer.....	Sept. 8
Vernon	Viroqua.....	A. J. Hutton and J. M. Rait.....	Aug. 20
Walworth	Elk Horn	S. S. Rockwood and A. F. North	Aug. 18
Washington	West Bend	A. A. Spencer and J. W. Congdon.....	Aug. 20
Waukesha.....	Waukesha.....	A. Salisbury.....	Apr. 2
Waupaca.....	Waupaca.....	J. Q. Emery and J. Burn- ham.....	Aug. 18
Waushara	Wautoma	R. Graham.....	Sept. 4
Wood	Grand Rapids	J. B. Thayer.....	Oct. 15

TABLE No. XIII.
TEACHERS' INSTITUTES. — SPECIAL REPORTS.

COUNTIES.	NUMBER ATTENDING THE INSTITUTE.			No. of days Institute was in session.	NUMBER HOLDING CERTIFICATES.			Average age of members.	Average experience in teaching of those having taught.	Not having taught but intending to teach.	Number having previously attended institutes.	NUMBER HAVING ATTENDED.					Number of Schools in County, or Superintendent's District.
	Male.	Female.	Total.		1st Grade.	2d Grade.	3d Grade.					Colleges and Universities.	Academies.	Normal Schools.	High Schools.	Common Schools only.	
Adams	17	47	64	9	1	4	320	20.5	23	31	1	2	3	1	54	63	
Barron	5	10	15	4	1	3	724	823.3	...	9	1	1	...	1	5	40	
Brown .....	...	...	...	4.5	...	...	...	...	...	...	...	...	...	...	...	...
Buffalo	25	27	52	10	...	6	4020	16	14	38	5	...	6	...	3	86	
Calumet	18	46	64	10	...	4	3720	26.6	19	46	...	4	13	...	4	66	
Chippewa	13	44	57	5	...	3	4421	320.8	...	37	8	7	2	...	39	60	
Clark	6	18	24	4.5	2	2	1822.5	18.1	...	17	5	...	...	...	10	...
Columbia	49	142	191	5	3	14	8321	20	76	85	11	11	7	...	92	163	
Crawford	17	61	78	9	2	5	4920	23	24	41	4	6	4	...	16	...	
Dane, 1st district	40	60	100	5	...	15	4820	12.7	43	50	14	22	3	...	40	126	
Dane, 2d district	40	73	113	5	6	18	60	...	...	...	...	...	...	...	...	131
Dodge, 1st district	37	65	102	4	15	20	5321	23	20	50	9	17	13	...	45	103	
Dodge, 2d district	19	49	68	4	6	10	4623	23	17	45	10	8	12	...	81	91	
Douf	7	22	29	5	2	1	1519	26.5	11	17	2	1	3	...	5	44	
Dunn	20	38	58	2	3	2	4020	19.5	15	40	4	2	1	...	87	93	
Eau Claire	29	60	89	5	4	6	3920	23.6	40	87	8	5	2	...	15	87	
Eau Claire	8	60	68	10	4	4	5620	23	16	44	3	6	4	...	47	...	

TABLE No. XIII. — *Teachers' Institutes — Special Reports — continued.*

COUNTIES.	NO. ATTENDING THE INSTITUTE			No. of days institute was in session.	NO. HOLDING CERTIFICATES.			Average age of members.	Average experience in teaching of those having taught.	Not having taught, but intending to teach.	Number having previously attended institutes.	NUMBER HAVING ATTENDED.					No. of schools in county, or superintendent district.
	Male.	Female.	Totals.		1st Grade.	2d Grade.	3d Grade.					Colleges and Universities.	Academies.	Normal Schools.	High Schools.	Common Schools only.	
Grant.....	32	100	132	10	8	15	87	22	23	25	78	10	2	76	17	27	265
Grant.....	15	32	47	4	5	7	23	21	28	10	20	2	17	10	1	17	.....
Green.....	43	54	97	10	3	8	48	19	16	59	48	7	3	2	13	72	180
Green Lake.....	13	41	54	23	2	6	36	22	16	14	40	.....	.....	.....	28	26	77
Iowa.....	11	66	77	4	.....	6	61	22	29	3	44	1	3	12	40	22	135
Iowa.....	11	35	46	4	.....	6	35	23	25	9	32	2	4	6	10	.....	.....
Jackson.....	16	68	84	10	5	6	64	20	17	14	44	15	1	2	54	12	70
Jefferson.....	36	64	100	5	4	11	53	20	22	23	54	8	3	14	59	11	143
Juneau.....	20	55	75	5	3	4	29	15	17	28	35	3	17	1	4	60	98
Juneau.....	15	51	66	8	2	6	31	20	19	25	41	2	36	1	10	17	.....
Kenosha.....	19	44	63	9	2	16	36	21	23	10	46	7	5	9	23	19	61
Keweenaw.....	13	17	30	4	.....	4	17	19	8	6	26	.....	.....	4	12	11	51
La Crosse.....	29	36	65	5	3	12	46	24	26	.....	49	15	9	4	31	6	.....
La Fayette.....	4	31	35	4	4	7	16	20	7	12	15	8	5	5	11	14	119
La Fayette.....	16	47	63	8	12	11	34	21	28	16	38	6	7	10	30	10	.....
Manitowoc.....	55	55	110	5	4	9	67	20	62	30	68	6	.....	20	47	37	107
Marathon.....	14	60	74	5	4	4	41	21	20	14	44	5	.....	25	33	31	70
Marquette.....	9	51	60	4	3	11	25	20	24	12	53	8	.....	3	12	42	55
Marquette.....	16	63	79	10	3	11	29	18	21	15	58	6	.....	4	10	55	.....

Monroe	39	95	184	3	5	12	92	118	47	88	9	6	78	34	124
Oconto	13	28	41	5	2	14	21	24.588	6	26	10	8	18	4	50
Outagamie	10	68	76	10	4	2	51	20.516	20	58	25	4	28	23	97
Ozaukee	28	30	58	10	1	2	42	23.29	28	18	10	1	9	31	85
Pepin	16	40	56	5	3	12	23	18.621.5	10	36	4	8	26	18	85
Pierce	8	32	40	10	5	9	20	20.19	10	35	17	8	17	9	.....
Polk	8	23	31	4	.....	3	18	21.22.5	8	13	.....	8	8	15	.....
Portage	14	26	40	10	5	4	24	21.16	7	19	4	1	9	22	63
Racine	8	40	48	9.5	1	3	29	20.526	15	38	4	3	24	8	98
Richland	22	48	70	9	2	6	49	20.214	19	51	1	85	17	10	77
Rock, 1st district	25	76	101	5	5	8	74	19.623.5	31	76	4	7	47	30	129
Rock, 2d district	19	56	76	10	8	9	48	20.09.5	16	68	8	2	58	17	.....
Rock, 3d district	16	28	44	4.5	8	9	28	24.527.2	7	34	9	11	8	9	90
St. Croix	30	61	91	5	5	16	60	21.421.6	.....	64	54	2	11	5	87
St. Croix	18	44	62	10	5	9	36	23.20	19	23	19	10	6	14	18
Sauk	36	66	102	5	6	12	40	10.20.5	30	48	.....	18	8	21	92
Sheboygan	14	87	51	5	1	10	84	20.817.5	10	44	8	8	6	1	.....
Trempealeau	10	88	48	9	.....	4	29	21.23.6	15	38	4	24	3	4	161
Vernon	31	118	149	9	1	12	110	22.23.6	26	113	12	15	9	102	.....
Walworth	19	60	79	9	4	4	59	22.22.9	21	38	4	1	4	38	150
Washington	30	51	81	10	5	8	51	22.619.9	.....	47	20	.....	8	48	80
Waukesha	47	77	124	9.5	8	2	84	18.15.2	.....	99	8	5	1	47	155
Waupaca	36	64	100	9	7	20	58	22.520.1	15	75	7	14	37	68	166
Waushara	21	43	64	10	2	4	36	20.21	.....	26	2	2	10	33	104
Wood	20	79	105	4	10	5	40	19.26	.....	43	38	5	10	39	117
Wood	24	95	119	10	6	10	86	21.222.5	29	88	9	5	10	60	108
Wood	18	58	76	22	1	7	46	.....	.....	50	8	1	7	.....	92
Wood	7	11	18	2	.....	8	14	19.718.3	.....	11	8	2	8	4	35
Total	1,330	3,283	4,613	455.5	194	495	2,688	20.621.7	1,029	4,780	465	819	534	1,252	4,728

TABLE No. XIV.
STATISTICS OF CITIES — SCHOOL CHILDREN AND ATTENDANCE.

CITIES.	No. of male children over 4 and under 20 years of age.	No. female children over 4 and under 20 years of age.	Whole No. children over 4 and under 20 years of age in city.	No. under 4 years who have attended school.	No. over 20 years who have attended school.	No. over 4 and under 20 years who have attended school.	Total No. different pupils who have attended school during the year.	No. days' attendance of pupils under 4 years.	No. days' attendance of pupils over 20 years.	No. days of attendance of pupils over 4 and under 20 years.	Whole No. days' of attendance of different pupils during the year.	No. days school has been taught by qualified teachers.	Per cent. of enrollment in the city.	Per cent. of attendance on No. enrolled.
Appleton.....	1,108	1,243	2,356	...	19	1,506	1,525	...	100	173,517	173,617	180	65	65
Beaver Dam.....	773	895	1,668	...	...	1,784	784	...	...	87,233	87,233	194	49	89
Beloit.....	815	793	1,509	...	...	1,190	1,190	...	...	251,815	251,815	200	74	95
Berlin.....	562	553	1,120	...	3	723	726	...	430	92,854	92,784	200	61	69
Columbus.....	358	374	732	...	11	559	570	...	990	60,971	61,061	180	77	91
Fond du Lac.....	2,786	3,060	5,846	...	...	2,643	2,648	...	...	873,420	873,420	200	45	70
Fort Howard.....	580	639	1,239	...	...	884	884	...	...	104,067	104,067	193	70	86
Grand Rapids.....	236	225	461	...	2	344	346	...	27	40,250	40,277	180	74	75
Hudson.....	1,035	1,151	2,186	...	...	1,289	1,289	...	...	158,169	158,169	200	59	61
Janesville.....	330	294	624	...	...	590	590	...	...	64,016	64,016	180	62	65
Kenosha.....	1,750	2,025	3,775	...	...	1,751	1,751	...	...	230,000	230,000	200	46	74
La Crosse.....	917	964	1,881	...	1	662	663	...	65	85,201	85,266	187	83	89
Madison.....	1,878	1,742	3,620	...	6	2,041	2,047	...	418	264,552	264,770	200	58	94
Menasha.....	1,921	2,005	3,926	...	...	2,212	2,212	...	...	368,298	368,298	185	56	90
Milwaukee.....	556	630	1,186	...	...	457	457	...	...	49,010	49,010	200	...	...
	17,397	18,842	36,739	...	...	14,965	14,965	...	...	...	...	201	41	...

Mineral Point.....	631	1,353	4	693	696	287	68,147	68,884	180	55	54
Neeah.....	662	1,847	.....	804	804	.....	96,670	96,670	189	59	58
Oscuito.....	684	1,203	.....	743	743	.....	91,598	91,598	200	58	63
Oshkosh.....	2,654	5,449	.....	2,853	2,863	.....	501,624	501,624	200	53	78
Portage.....	820	1,560	.....	924	924	.....	108,330	108,330	193	52	60
Prairie du Chien.....	491	996	5	596	601	251	59,003	59,254	200	60	49
Racine.....	2,326	2,459	2	2,199	2,201	104	818,948	819,052	200	46	65
Sheboygan.....	1,225	1,287	.....	1,202	1,202	.....	142,015	142,015	197	47	59
Slevens Point.....	639	1,706	3	790	793	57	75,563	75,620	179	59	83
Watertown.....	1,808	1,894	.....	1,204	1,204	.....	149,718	149,718	200	33	90
Wausau.....	492	971	.....	693	698	.....	108,500	108,500	180	.....	83
Totals.....	45 829	47,751	56	45,819	45,875	2,679	4,111,889	4,114,055	5,213	53	70½

TABLE No. XV.
STATISTICS OF CITIES — TEACHERS, SALARIES, LIBRARIES.

CITIES.	TEACHERS, SALARIES, ETC.										LIBRARIES.									
	Number of teachers required to teach the schools.	Number male teachers employed during year.	Number female teachers employed during year.	Whole number teachers employed during year.	Highest salary paid to male teachers (per annum).	Average salary paid to male teachers (per annum).	Highest salary paid female teachers (per annum).	Average salary paid female teachers (per annum).	Number of schools with three or more departments.	Number of schools with two departments.	Number of mixed or ungraded schools.	Number of separate schools.	Number of libraries in the city.	Total number of volumes added during the year.	Total amount expended for library books during the year.	Number of volumes loaned during the year.	Number of volumes lost during the year.	Whole number of volumes in each library.	Average number of volumes in each library.	Cash value of all the libraries.
Appleton.....	25	5	20	25	\$1,200	\$775	\$450	\$368 00	9	8	1	1	25	\$75	.....	.....	.....	.....	20	\$300
Beaver Dam.....	13	2	11	13	1,200	1,200	500	340 00	1	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Beloit.....	18	1	17	18	1,800	1,800	700	423 35	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Berlin.....	14	3	11	14	1,200	733	400	318 00	2	.....	.....	.....	.....	.....	.....	.....	.....	500	250	500
Columbus.....	8	1	7	8	1,200	1,200	500	309 30	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fond du Lac.....	46	3	43	46	1,200	850	700	402 17	6	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fort Howard.....	13	2	11	13	1,100	950	450	336 50	2	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Grand Rapids.....	5	1	5	6	1,200	1,200	600	470 00	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Green Bay.....	19	2	17	19	1,700	1,075	550	460 30	2	2	1	1	1	.....	.....	.....	.....	100	100	50
Hudson.....	8	1	10	11	700	1,500	450	360 00	1	1	.....	.....	.....	.....	.....	.....	.....	100	100	125
Janeville.....	35	1	34	45	1,500	1,500	650	360 00	6	.....	.....	.....	.....	.....	.....	.....	.....	200	200	400
Kenosha.....	14	1	13	14	1,500	1,500	650	364 00	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

TABLE No. XVI.
STATISTICS OF CITIES—SCHOOL HOUSES AND SITES.

Cities.	Number public school houses in the city.	Number school houses yet required.	Number now building.	Whole number school children resident in city.	Whole number school houses will accommodate.	Number of school house sites owned by city.	Number sites containing only one lot.	Number sites containing more than one lot.	Number of sites suitably enclosed.	Number of school houses built of stone or brick.	Highest valuation of school house and site.	Cash value of all the public school houses in the city.	Cash value of sites.	Number of school houses properly ventilated.	Number of school houses with separate out-houses for the sexes.	Number of school houses with out-houses in good condition.
Appleton.....	6	1	...	2,356	1,600	6	...	6	5	4	\$18,000	\$43,000	\$12,000	3	6	6
Beaver Dam.....	4	2	...	1,668	759	4	...	4	4	3	12,000	25,000	4,500	4	4	4
Beloit.....	3	...	...	1,600	1,000	3	...	3	3	8	35,000	65,000	8,500	3	3	3
Berlin.....	2	...	...	1,120	900	2	...	2	2	...	35,000	47,000	7,000	2	2	2
Columbus.....	2	1	...	732	450	2	1	1	2	1	6,000	4,500	8,000	2	2	2
Fond du Lac.....	19	...	...	5,846	2,850	17	2	15	17	2	50,000	98,700	22,000	4	19	19
Fort Howard.....	6	...	...	1,239	900	5	3	2	2	3	18,000	20,000	6,000	4	6	5
Grand Rapids.....	1	...	...	461	600	1	...	5	...	1	35,000	33,000	2,000	1	1	1
Green Bay.....	6	...	...	2,186	980	5	...	5	5	8	30,000	55,000	9,000	...	3	6
Hudson.....	2	...	...	624	600	3	...	3	2	3	12,000	14,000	2,000	1	3	3
Janeville.....	6	...	...	3,775	1,780	6	...	6	6	6	33,000	89,000	10,000	2	6	6
Kenosha.....	3	1	1	1,984	700	8	...	3	3	2	10,000	17,000	8,570	3	3	3
La Crosse.....	8	1	2	3,620	1,743	9	4	4	7	4	17,000	43,713	11,125	1	9	9
Madison.....	9	...	...	3,926	1,700	8	2	2	7	8	20,000	98,000	10,400	9	9	9
Menasha.....	4	...	...	1,186	536	4	2	2	2	4	6,000	10,500	2,500	4	4	4

Milwaukee	22	5	5	85,789	12,000	24	3	21	23	19	54,500	848,500	171,000	2	23	23
Mineral Point	2	...	...	1,252	900	2	...	2	2	2	10,000	15,000	4,000	...	2	2
Neenah	7	...	...	1,847	700	5	...	5	5	3	7,000	10,000	7,000	1	7	7
Oconto	5	1	...	1,208	450	5	...	5	4	...	2,000	6,000	800	...	5	5
Oshkosh	9	...	...	5,449	3,500	10	...	9	9	4	50,000	90,000	80,000	4	9	9
Portage	4	1	...	1,560	950	4	...	4	4	3	10,000	25,000	6,000	4	4	4
Prairie du Chien	5	...	...	996	750	2	...	3	4	3	15,000	13,500	1,500	...	5	5
Racine	8	2	...	4,750	2,020	7	1	7	6	7	17,000	42,300	26,700	5	8	8
Sh. boy an	5	1	...	2,522	1,020	3	...	3	3	3	10,000	17,000	3,500	8	5	2
Stevens Point	5	1	1	1,845	700	4	...	4	3	...	1,800	8,000	2,000	5	5	5
Wate'own	5	1	...	8,697	1,200	5	...	5	5	3	10,000	20,000	11,000	5	5	5
Wausau	3	3	...	971	600	2	...	2	1	1	25,000	30,000	4,500	1	3	3
Totals	161	19	9	98,163	41,882	154	20	134	133	94	549,300	1,287,712	391,095	73	162	152

TABLE No. XVII.
STATISTICS OF CITIES — SCHOOL ROOMS, APPARATUS — PRIVATE SCHOOLS.

CITIES.	SCHOOL ROOMS, APPARATUS, ETC.										PRIVATE SCHOOLS.					
	Whole number of school rooms occupied.	Number sufficiently supplied with blackboards.	Whole number supplied with illustrative charts.	Whole number supplied with outline maps.	Whole number supplied with a globe.	Whole number supplied with other apparatus.	Whole number adequately supplied with apparatus.	Cash value of all apparatus including maps and globes.	Number of such schools in the city.	Number of which are denominational or parochial.	Number of same which are graded.	Whole number teachers employed in private schools.	Number pupils taught in such schools.	Number taught who have not attended the public school during the year.	Average number of days such schools have been taught.	Average number pupils in daily attendance.
Appleton.	25	24	17	12	8	6	1	\$500	2	1	4	...	175	50	175	150
Beaver Dam.	12	12	12	12	12	12	...	150	3	2	...	5	318	275	200	200
Beloit.	19	19	6	2	4	1	...	600	2	1	...	4	300	300	...	...
Berlin.	14	14	14	12	6	14	12	600	...	...	...	...	...	...	...	...
Columbus.	8	8	8	8	6	...	...	50	...	...	...	...	...	...	...	...
Fond du Lac.	46	46	15	38	15	4	...	600	...	...	...	...	...	...	...	...
Fort Howard.	11	4	4	3	2	1	...	150	...	...	...	...	...	...	...	...
Grand Rapids.	5	5	5	5	5	5	...	250	1	...	...	1	16	16	240	8
Green Bay.	16	16	16	16	6	8	1	500	4	4	...	12	600	...	200	...
Hudson.	8	8	1	8	2	1	1	100	...	...	...	...	...	...	...	...
Janesville.	32	32	2	2	24	1	...	...	5	2	...	11	411	300	218	380
Kenosha.	14	14	4	4	8	...	...	500	5	3	8	15	550	500	195	450
La Crosse.	33	33	33	33	6	33	20	800	9	6	...	16	800	680	...	...
Madison.	26	26	26	26	26	26	26	...	6	4	1	11	600	600	200	400

Menasha.....	8	8	8	8	1	4	4	500	2	2	...	6	850	350	200	...
Milwaukee.....	190	190	190	190	5	2	...	2,015	57	35	57	289	9,437	8,588	228	8004
Mineral Point.....	9	9	9	9	5	2	...	250	8	8	...	6	241	...	150	150
Neenah.....	12	12	7	2	1	1	...	150	3	2	...	4	150	50	...	...
Oconto.....	...	...	...	...	...	...	...	...	2	2	...	5	250	150	200	200
Oshkosh.....	59	59	36	36	10	14	50	2,500	5	4	...	15	800	800	200	...
Portage.....	15	15	10	10	5	10	...	300	2	2	...	3	285	275	197	180
Prairie du Chien...	8	8	...	8	4	...	...	100	2	2	...	4	200	175	185	140
Racine.....	32	30	...	...	5	82	...	500	8	6	3	17	619	552	198	549
Sheboygan.....	18	18	5	4	5	4	5	400	7	4	...	8	550	524	153	315
Stevens Point.....	10	10	2	6	2	10	...	50	2	1	1	5	200	175	160	150
Watertown.....	20	20	20	20	19	20	18	2,000	6	4	3	9	525	500	220	400
Wausau.....	11	11	2	4	3	...	...	150	2	2	...	2	120	50	...	...
Totals.....	668	658	452	478	875	204	140	11,845	138	92	72	388	17,507	14,910	3,519	778

TABLE No. XVIII.
STATISTICS OF CITIES — FINANCIAL STATISTICS — RECEIVED.

CITIES.	Money on hand August 31, 1876.	From taxes levied for build- ing and repairing.	From taxes levied for teach- ers' wages.	From taxes levied for appa- ratus and library.	From taxes levied at the an- nual meeting.	From taxes levied by the county supervisors.	From income of state school fund.	From all other sources.	Total amount received dur- ing the year.
Appleton	\$3,888 65	\$1,125 00	\$10,135	\$520	\$16,372 66	\$1,104 49	\$1,051 79	\$2,585 27	\$24,972 86
Beaver Dam.....	1,646 18	200 00	4,000	.....	1,800 00	625 25	625 25	634 64	8,931 33
Berlin	8,751 46	.....	.....	.....	6,500 00	460 84	464 53	200 00	11,376 33
Beloit	1,308 71	7,456 00	9,200	.....	8,000 00	1,125 70	634 27	882 85	28,608 53
Columbus.....	186 67	.....	.....	.....	3,800 00	249 28	280 44	717 50	5,183 89
Fond du Lac.....	405 10	.....	.....	.....	24,288 01	.....	2,457 13	7,047 56	34,197 80
Fort Howard.....	3,794 24	150 00	5,600	.....	868 50	510 86	513 32	18 50	11,455 43
Grand Rapids.....	.....	.....	.....	.....	8,653 07	179 58	179 58	1,771 18	6,783 41
Green Bay.....	6,015 52	.....	.....	.....	9,000 00	908 64	949 56	58 00	16,926 72
Hudson.....	1,373 37	.....	.....	.....	3,761 00	264 00	264 27	.....	4,284 69
Janesville.....	5,000 00	.....	.....	.....	15,500 00	2,265 37	1,520 69	160 00	24,446 06
Kenosha.....	2,783 53	.....	.....	.....	7,125 00	1,500 00	772 44	484 00	12,664 97
La Crosse.....	.....	8,000 00	19,500	100	.....	.....	.....	.....	.....
Madison.....	1,983 12	.....	.....	.....	23,750 00	.....	1,483 79	4,000 00	30,215 92
Menasha.....	1,886 98	.....	.....	.....	8,500 00	600 00	483 48	27 00	5,986 46

Milwaukee	\$64,761 71	.....	.....	.....	\$112,397 88	\$59,205 67	\$14,323 76	.....	\$250,769 02
Mineral Point	2,107 03	\$1,000 00	.....	.....	4,000 00	564 98	509 22	\$65 47	8,745 50
Neenah	1,622 19	.....	.....	.....	7,500 00	700 00	548 17	426 27	10,796 68
Oconto	.....	32 95	.....	.....	5,083 53	460 00	404 87	.....	6,076 35
Oshkosh	7,225 64	.....	.....	.....	22,010 00	12,900 00	2,418 18	96 25	44,740 07
Portage	.....	5,940 00	.....	.....	6,816 33	719 96	728 16	228 73	14,483 18
Prairie du Chien	1,829 47	1,733 50	.....	.....	4,000 00	500 00	887 04	31 15	8,481 16
Racine	.....	414 36	.....	.....	25,800 00	1,825 00	1,825 00	375 21	30,239 57
Sheboygan	892 60	.....	.....	.....	16,335 98	1,103 72	1,200 07	8 00	19,540 37
Stevens Point	8,461 16	.....	.....	.....	8,500 00	.....	480 52	.....	7,441 08
Watertown	5,558 07	.....	.....	.....	6,829 60	1,503 47	1,503 47	784 47	16,178 88
Wausau	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals	\$120,800 41	\$26,051 81	\$54,855 00	\$620	\$240,691 56	\$39,362 08	\$36,097 42	\$20 612 05	\$642,480 29

TABLE No. XIX.
STATISTICS OF CITIES—FINANCIAL STATISTICS—PAID.

CITIES.	For building and repairing.	For apparatus and libraries.	For services of male teachers.	For services of female teachers.	For old indebtedness.	For furniture, registers and records.	For all other purposes.	Total amount paid out during the year.	Money on hand August 31, 1877.
Appleton	\$3,815 78	\$337 04	\$3,530 00	\$7,077 50	\$2,948 18	\$1,200 76	\$1,182 09	\$20,091 30	\$4,881 56
Beaver Dam.....	138 11	.....	1,400 00	3,710 00	.....	61 72	1,854 18	7,194 01	1,737 31
Berlin.....	.....	.....	2,200 00	3,500 00	.....	.....	2,829 67	8,539 67	2,847 16
Beloit.....	7,450 00	.....	1,800 00	7,400 00	2,500 00	1,954 00	5,842 59	26,552 59	2,155 94
Columbus.....	409 18	38 75	1,200 00	2,147 41	.....	32 28	849 75	4,667 37	516 52
Fond du Lac	8,327 00	.....	2,550 00	17,301 14	.....	637 50	6,707 81	30,523 45	3,674 35
Fort Howard	199 15	.....	1,900 00	8,574 50	.....	627 57	1,688 07	7,939 29	3,516 13
Grand Rapids .....	.....	.....	1,218 75	1,120 00	2,560 00	.....	884 66	5,763 41	.....
Green Bay.....	578 35	9 00	2,150 00	7,591 25	.....	53 40	2,492 77	12,814 77	4,111 95
Hudson.....	.....	.....	702 00	2,475 00	.....	.....	1,049 40	4,226 40	1,434 06
Janesville.....	6,937 44	.....	1,837 50	11,602 50	782 98	1,021 00	2,208 48	24,339 90	1,106 16
Kenosha.....	2,659 10	.....	1,500 00	4,658 50	.....	150 00	2,433 27	11,400 87	1,264 10
La Crosse.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Madison.....	2,173 18	208 50	2,850 00	18,576 48	5,700 00	17 50	2,686 70	27,207 86	3,006 56
Menasha.....	52 44	10 00	1,200 00	2,345 00	.....	.....	612 74	4,230 18	1,766 28

Milwaukee.....	1,227 18	*	*	178,533 55	174,760 88	76,008 19
Mineral Point.....	361 48	1,560 00	2,205 00	356 53	4,931 31	8,817 19
Neenah.....	344 08	1,200 00	4,990 00	1,549 69	8,450 84	2,846 29
Oconto.....	37 95	1,600 00	8,501 90	986 50	6,076 35	.....
Oshkosh.....	7,142 58	5,651 00	17,906 00	6,721 05	87,418 57	7,321 50
Portage.....	5,400 00	1,800 00	4,120 00	1,081 50	18,512 71	920 40
Prairie du Chien.....	2,265 23	16 00	1,250 00	1,064 21	7,244 61	1,236 55
Racine.....	1,480 86	4,400 00	14,590 00	5,051 20	81,040 28	.....
Sheboygan.....	4,083 56	8,200 00	6,147 49	2,202 14	15,633 19	8,907 18
Stevens Point.....	259 43	1,400 00	2,563 50	600 55	5,250 98	2,190 70
Watertown.....	245 82	2,590 00	5,631 24	1,777 00	10,563 34	5,615 54
Wausau.....	296 84	1,250 00	2,159 00	669 11	4,864 55	.....
Totals.....	\$47,961 56	\$2,031 77	\$50,708 25	\$153,153 74	\$23,542 60	\$7,962 59
					\$518,110 63	\$184,874 23

* The aggregate of teacher's wages for Milwaukee is included in the column "For all other purposes."

TABLE No. XX.
STATISTICS OF CITIES—TEXT BOOKS.

CITIES.	Spellers.	Readers.	Mental Arithmetic.	Written Arithmetic.	Grammar.	Geographies.
Appleton	Swinton & Patt'n	Watson's Ind....	Robinson.....	Robinson.....	Swinton & Harvey	Monteith.
Beaver Dam.....	Swinton & Patt'n	Harvey	White	White & Robinson	Harvey	Eclectic.
Berlin.....	Swinton	Union	Robinson.....	Robinson.....	Fowler	Guyot.
Beloit.....	Swinton	Independent ..	Robinson.....	Robinson.....	Greene	Monteith.
Columbus	Swinton	Am. Series	Robinson.....	White	Swinton	Monteith.
Fond du Lac	National	Independent ..	Robinson.....	Robinson.....	Harvey & Greene.	Guyot.
Fort Howard	Sanders	Sanders	Davies	Davies ..	Kerl	Mitchell & Swint.
Grand Rapids ..	Swinton	Independent ..	Robinson.....	Robinson.....	Clark	Monteith.
Green Bay	American	Union.....	Davies	Davies ..	Kerl	Colton.
Hudson	National	Monroe	Davies	Davies ..	Swinton	Swinton.
Janesville	Union.....	Union.....	Davies	Robinson.....	Swinton & Greene	Warren.
Kenosha	Analytical.....	Analyt & Sheldon	Hagar	Walton...	Swinton & Bullion	Cornell & Guyot.
La Crosse	Swinton	Independent ..	Hagar	Hagar	Swinton & Harvey	Guyot.
Madison	Swinton	Independent ..	Robinson.....	Robinson..	Greene & Swinton	Eclectic.
Menasha	Sanders	Sanders	Robinson.....	Robinson..	Kerl	Monteith.
Milwaukee	Swinton	Harvey	Robinson.....	White	Harvey .....	...
Mineral Point ..	Swinton	Sanders' Union..	Robinson.....	Robinson.....	Swinton	Cornell.
Neenah	Swinton	Willson	Robinson.....	Robinson.....	Kerl	Guyot.
Oconto	Town	Fanders	Robinson.....	Olney	Swinton	Monteith.
Oshkosh	Swinton	Sanders	Robinson.....	Robinson.....	Swinton	Eclectic.
Portage	Swinton	Hilliard & Am..	Robinson.....	Robinson.....	Brown & Swinton	Mitchell & Mont.
Prairie du Chien	National	Sanders' Union..	Robinson.....	Robinson.....	Kerl	Mitchell.
Racine	Sanders' Union ..	Sanders' Union..	Stoddard	Stod. & Felter ..	Greene	Warren.
Shelbygan	Swinton	American	Robinson.....	Robinson.....	Swinton	Swinton.
Stevens Point...	Swinton	Model	Davies	Davies ..	Harvey	Monteith & McN.
Watertown	Union	Willson & Davis	Rob'n & Stoddard	Kay	Swinton	Guyot & Harper.
Wausau	National	Independent ..	Davies	Davies	Harvey	Monteith.

TABLE No. XX. — *Statistics of Cities.* — *Text-Books* — continued.

Cities.	United States Histories.	Physiology.	Algebra.	Geometry.	Latin Grammars and Readers.	Natural Philosophy.
Appleton	Barnes	Cutter	Loomis	Loomis	Harkness	Norton.
Beaver Dam	Venable	Cutter	Olney	Olney	Bartholomew	Norton.
Berlin	Child	Hooker	Robinson	Robinson	Allen	Cooley.
Beloit	Anderson	Cutter	Robinson	Robinson	Harkness	Cooley.
Columbus	Barnes	Hutchinson	Robinson	Robinson	Allen	Steele.
Fond du Lac	Ridpath	Hutchinson	Olney	Olney	Allen & Greenough	Norton.
Fort Howard	Anderson	Hutchinson	Robinson	Davies	Peck	Steele.
Grand Rapids	Swinton	Cutter	Davies	Davies	Allen & Leighton	Norton.
Green Bay	Barnes	Steele	Robinson	Evans	Hoskins	Quackenbos.
Hudson	Barnes	Hitchcock	Davies	Davies	Andrews	Steele.
Janesville	Swinton & Barnes	Cutter	Robinson	Robinson	Allen & Greenough	Rife & Gillette.
Kenosha	Barnes	Hooker	Robinson	Davies	Harkness	Norton.
La Crosse	Barnes	Cutter	Robinson	Davies	Allen	Norton.
Madison	Barnes	Dalton	Robinson	Loomis	Allen	Steele.
Menasha	Barnes	Steele	Olney & Robinson	Olney	Allen	Steele.
Milwaukee	Barnes	Steele	Olney & Robinson	Olney	Allen	Steele.
Mineral Point	Swinton	Steele	Robinson	Robinson	Harkness	Wells.
Neenah	Swinton	Hitchcock	Robinson	Robinson	Allen	Wells.
Oconto	Swinton	Hitchcock	Robinson	Davies	Bartholomew	Norton.
Oshkosh	Lossing	Hitchcock	Olney	Olney	Harkness	Steele.
Portage	Barnes	Steele	Robinson	Robinson	Allen	Quackenbos.
Prairie du Chien	Barnes	Brown	Robinson	Robinson	Harkness	Steele.
Racine	Anderson	Hooker	Olney	Olney	Allen	Steele.
Sheboygan	Swinton	Hutchinson	Davies	Davies	Allen	Steele.
Stevens Point	Barnes	Steele	Robinson	Loomis	Brooks	Steele.
Watertown	Barnes	Steele	Robinson	Davies & Loomis	Harkness	Wells.
Wausau	Barnes	Huxley & Youman	Davies	Robinson	Harkness	Wells.

TABLE No. XXI.
STATISTICS OF CITIES — SPECIAL STATISTICS.

Cities.	Number of children between 4 and 7 years of age in the city.	Number of children between 7 and 15 years of age in the city.	Number of persons between 15 and 20 years of age in the city.	Number of children between 4 and 7 years of age who have attended school.	Number of children between 7 and 15 years of age who have attended school.	Number of persons between 15 and 20 years of age who have attended school.	Number incapacitated for in- struction from defect of vision.	Number incapacitated for in- struction from defect of hearing.	Number incapacitated for in- struction from defect of in- tellect.
Appleton.....	536	1,071	759	288	992	285	.....	4	.....
Beaver Dam.....	616	641	411	372	306	106	.....	.....	.....
Berlin.....	250	611	259	72	549	102	.....	.....	2
Beloit.....	361	717	527	143	672	462	.....	1	1
Columbus.....	163	867	202	101	367	91	.....	.....	.....
Fond du Lac.....	1,385	2,580	1,931	.....	.....	.....	2	6	5
Fort Howard.....	801	601	337	215	612	57	.....	1	2
Grand Rapids.....	152	211	98	47	254	43	2	1	.....
Green Bay.....	561	1,060	545	323	861	105	.....	.....	1
Hudson.....	128	315	180	65	318	94	.....	.....	.....
Janesville.....	772	1,534	1,469	255	1,208	288	.....	1	1
Kenosha.....	393	960	651	134	426	102	.....	4	2
La Crosse.....	1,172	1,734	329	428	1,499	114	1	1	6
Madison.....	1,970	1,921	1,035	340	1,617	265	.....	2	3
Menasha.....	262	533	539	109	306	42	.....	.....	.....

Millwaukee	7,760	17,810	10,169	4,417	10,005	563	7	46	27
M neral Point	806	582	364	151	567	219	.....	1	.....
Neenah	823	696	328	134	552	118	.....	1	7
Oc nto	873	649	181	221	481	40	.....	1	.....
Oshkosh	1,494	2,604	1,351	798	1,785	270	1	1	2
Portage	356	750	450	163	613	148	.....	2	2
Prairie du Chien	239	496	261	108	367	126	2	1	4
R-cine	1,055	2,290	1,435	448	1,580	171	1	3	6
Sheboygan	625	1,262	635	439	685	78	3	6	3
Stevens Point	296	1,686	861	188	519	88	.....	5	1
Watertown	969	1,708	1,020	88	1,174	46	3	4	5
Wausau	237	518	96	100	486	74	.....	2	4
Totals	22,075	44,927	26,303	10,037	28,791	4,107	22	93	84

TABLE No. XXII.
STATISTICS OF CITIES — CERTIFICATES.

CITIES.	MALE TEACHERS.			FEMALE TEACHERS			Totals.
	1st Grade.	2d Grade.	3d Grade.	1st Grade.	2d Grade.	3d Grade.	
Appleton.....		3			3	18	24
Beaver Dam.....	1	1		1	5	16	24
Berlin.....	2	1		1	10		14
Beloit.....	1			14			15
Columbus.....					6		6
Fond du Lac.....			3			43	46
Fort Howard.....		2	1		4	12	19
Grand Rapids.....						1	1
Green Bay.....						14	14
Hudson.....	2				10		12
Janesville.....					7		7
Kenosha.....	1			2	2	9	14
La Crosse.....	1	1	5		1	28	36
Madison.....							
Menasha.....	1				2	6	9
Milwaukee.....							87
Mineral Point.....	1		1			8	10
Neerah.....	1				4	9	14
Oconto.....		1				11	12
Oshkosh.....			6			51	57
Portage.....	2				1	12	15
Prairie du Chien.....	1			2	2	6	11
Racine.....				15	17	5	37
Sheboygan.....							
Stevens Point.....							
Watertown.....	1			3	8	8	20
Wausau.....	1		1			11	13
Totals.....	16	9	17	38	82	268	517

TABLE No. XXIII.

SUMMARIES OF STATISTICS.

Description.	Counties.	Cities.	Totals.
Number of children over four and under twenty years of age.....	385,808	98,080	478,888
Number of children over four and under 20 years of age in districts maintaining school five or more months	881,879	98,080	474,959
Number of children over four and under twenty years of age who have attended school.....	243,806	45,819	289,125
Total number of the different pupils who have attended the public schools during the year.....	245,895	45,875	291,270
Number of days attendance of pupils over four and under twenty years of age	16,243,023	4,111,889	20,354,412
Total number of days attendance of different pupils during the year....	16,317,502	4,114,055	20,431,557
Number of days school has been taught by qualified teachers....	829,417	5,213	834,630
Number of children who have attended private schools only.....	8,714	14,910	23,624
Number of schools with two departments	161	83	194
Number of schools with three or more departments.....	124	87	811
Number of teachers required to teach the schools.....	5,868	703	6,571
Number of different persons employed as teachers during the year.....	9,146	712	9,858
Number of public school houses.....	5,159	161	5,320
Number of pupils the school houses will accommodate.....	304,062	41,882	345,944
Number of school houses built of brick or stone.....	696	94	790
Number of school houses with out-houses in good condition.....	3,518	152	3,670
AGGREGATE OF VALUES.			
Total valuation of school houses.....	\$3,056,176	\$1,287,712	\$4,343,888
Total valuation of sites.....	304,291	381,095	685,386
Total valuation of apparatus.....	143,783	11,845	154,628
Totals	\$3,503,250	\$1,680,652	\$5,183,902

TABLE No. XXIII.—*Summaries of Statistics*—continued.

AGGREGATE OF EXPENDITURES.

Description.	Counties.	Cities.	Totals.
Amount expended for building and repairing	\$210,054	\$47,962	\$258,016
Amount expended for apparatus and libraries	14,156	2,032	16,188
Amount expended for teachers' wages.	1,218,285	*344,803	1,563,088
Amount expended for old indebtedness.	61,462	22,543	84,005
Amount expended for furniture, registers and records.....	29,673	7,963	37,636
Amount expended for all other purposes.....	202,947	87,808	290,655
Total amount expended.....	\$1,736,527	\$518,111	\$2,249,638

* This aggregate of expenditure for teachers' wages in cities includes the amount in Milwaukee (\$140,947), but the items, for male and female teachers are not reported.

TABLE No. XXIV.
STATISTICS OF FREE HIGH SCHOOLS.

Location.	Whole number of pupils registered.	Average daily attendance.	No. of teachers employed.	No. of terms of high school.	Number of weeks of high school.	Number of pupils in common branches only.	Number of pupils in algebra or geometry.	Number in natural sciences, including physiology and physical geography.	Number in modern languages.	Number in ancient languages.	Amount received for tuition.	Amount actually expended for instruction.	Amount of aid received from the state.
Appleton.....	143	63 p. c.	9	3	36	91	52	52	22	7	\$354 00	\$2,325 00	\$460 85
Avoca.....	23	154½	1	2	24	23	41	61	35	.....	9 00	555 00	255 75
Beaver Dam....	106	70	3	3	40	15	91	118	26	101	393 00	1,900 00	474 80
Beloit.....	129	101	3	3	40	11	68	20	.....	60	214 00	3,200 00	510 15
Black Riv. Falls	68	54.2	2	3	36	.....	41	22	19	4	37 50	1,415 00	460 85
Boscobel.....	41	82	1	3	37	.....	40	90	.....	27	.....	1,200 00	460 85
Burlington....	104	93	2	3	40	14	40	40	.....	.....	.....	1,300 00	460 85
Chilton.....	59	80	3	3	40	30	15	25	69	8	241 00	1,025 00	460 85
Darlington....	93	58+	2	3	34	50	40	41	15	20	127 60	1,230 62	460 85
Delavan.....	115	80	2	3	36	.....	52	53	.....	21	175 00	1,750 00	460 85
Durand.....	40	31½	1	2	28	36	4	47	.....	82	20 00	420 00	198 55
Eau Claire....	75	36	2	3	36	24	47	47	.....	40	175 00	1,605 00	460 85
Elkhorn.....	78	60	2	3	36	16	40	62	.....	15	51 65	1,039 00	460 85
Evansville....	48	31	2	3	36	20	15	24	7	40	1 13	2,900 00	838 95
Fond du Lac...	204	151	4	3	40	.....	80	185	.....	23	131 50	1,077 47	460 85
Fort Atkinson.	133	107	3	2	15½	50	37	84	.....	.....	.....	.....	.....

TABLE No. XXIV. — *Statistics of Free High Schools* — continued.

LOCATION.	Whole number of pupils registered.	Average daily attendance.	No. of teachers employed.	No. of terms of high school.	Number of weeks of high school.	Number of pupils in common branches only.	Number of pupils in algebra or geometry.	Number in natural science, including physiology and physical geography.	Number in modern languages.	Number in ancient languages.	Amount received for tuition.	Amount actually expended for instruction.	Amount of aid received from the state.
Geneva.....	112	75	2	3	56	24	17	83	7	23	322 94	1,883 50	460 85
Grand Rapids..	47	43	1	3	86	40	7	7	.....	.....	.....	1,200 00	460 85
Hazel Green...	50	25	1	1	18	30	14	20	.....	.....	.....	292 00	134 55
Hillsborough..	19	8 ⁴⁶	1	2	32	13	8	5	.....	.....	.....	673 00	294 90
Horicon.....	103	53	2	3	40	67	14	29	.....	4	278 50	1,800 00	460 85
Kenosha	86	54 ⁴	3	3	58	4	84	66	21	20	81 90	2,500 00	521 00
Kewaunee	24	88	1	3	40	24	9	9	.....	.....	8 75	3,800 00	368 65
La Crosse.....	87	68	4	3	40	.....	20	21	51	57	26 00	3,920 00	749 30
Lake Mills.....	40	78 p. c.	1	3	36	22	9	18	.....	.....	107 50	650 00	297 55
Lancaster	75	50	2	3	36	10	28	47	26	18	96 40	1,405 00	460 85
Lodi.....	56	33 ⁴⁴	2	3	36	.....	37	56	.....	8	207 50	891 50	410 80
Lone Rock.....	66	98	2	3	40	55	14	18	.....	3	172 25	744 00	842 85
Madison	238	215	8	3	37	87	90	171	61	151	479 98	4,551 00	678 75
Marquette	41	25	2	3	40	13	11	32	.....	.....	.....	1,600 00	460 85
Mauston	103	70	2	3	38	61	42	82	.....	.....	69 00	1,000 00	460 85
Mayville	48	23 ⁴⁷	2	3	40	38	8	10	82	.....	65 52	950 00	437 80
Mazomanie...	73	48 ⁴⁴	2	3	30	34	38	38	7	.....	66 00	1,053 33	460 85
Mineral Point..	60	32	2	3	36	40	.....	.....	14	7	55 72	1,515 00	462 50
Necedah	105	46	2	3	32	77	43	16	2	4	.....	1,010 00	460 85

Neeah	73	59½	2	3	40	.....	35	51	2	4	55 72	1,650 00	492 25
New Lisbon	88	57	2	3	36	28	23	4	24	10	100 50	1,360 00	460 85
Omro	108	66½	2	3	32	43	46	58	.....	.....	125 75	1,040 00	460 85
Osceola Mills	25	18½	2	2	24	25	7	8	.....	.....	7 50	485 00	200 45
Oshkosh	487	260	13	3	40	.....	.....	.....	.....	.....	.....	8,760 00	891 40
Perin	50	29½	1	3	36	22	18	25	6	.....	55 50	675 00	311 00
Pewaukee	76	56	1	2	32	35	25	45	.....	.....	25 00	680 00	318 35
Plymouth	68	88½	1	3	35	48	7	19	.....	.....	253 70	900 00	414 75
Portage	124	63	2	3	40	38	36	40	15	.....	89 38	1,800 00	501 90
Richland Center	68	81	1	3	36	38	30	30	.....	.....	70 65	585 00	269 55
Shelby	54	48½	2	3	40	19	15	19	10	.....	.....	1,800 00	578 45
Shueboygan	93	58	2	3	34	50	40	41	15	20	127 60	1,230 63	460 85
Shullsburg	174	99	4	3	40	30	144	45	27	63	243 00	2,600 00	460 85
Sparta	92	51	2	3	36	29	30	35	.....	.....	.....	1,825 00	472 00
Stevens Point	69	57	2	3	24	50	19	7	.....	.....	80 62	1,700 00	323 55
Stockbridge	65	43	1	3	36	43	23	18	.....	.....	28 00	800 00	368 65
Stoughton	60	47	2	3	36	35	25	15	11	14	129 43	950 00	437 80
Tomah	58	25½	1	3	36	2	46	17	12	10	118 00	800 00	368 65
Viroqua	139	113	4	3	40	24	114	109	106	93	80 75	2,250 00	661 25
Watertown	163	93	5	3	38	84	88	43	26	13	33 50	2,946 12	460 85
Waupaca	45	88	1	3	40	36	7	6	.....	.....	142 65	900 00	414 75
Waupun	55	35	2	3	36	.....	16	55	55	3	260 00	885 00	407 85
West Salem													
Totals	5,118	37½	135	163	2,017	1,694	1,862	2,247	704	900	\$6,315 61	\$87,913 17	\$25,460 85

TABLE No. XXV.

DISTRIBUTION OF DICTIONARIES.

STATEMENT showing the counties, towns and districts which have been supplied with dictionaries during the year ending December 10, 1877.

COUNTIES.	TOWNS.	Departm'ts.	No. of the district.	No. copies.
Adams	Dell Prairie		3	1
	Jackson and New Haven		10	1
Barron	Lakeland		2	1
Buffalo	Alma	1	1	1
	Dover		3	1
	Lincoln		4	1
	Modena		3	1
	Naples		8	1
	Nelson		5	1
Burnett	Grantsburg		4.5	2
Calumet	Chilton, city	1	1	1
	New Holstein	1	1	1
Chippewa	Boomer		8	1
	Edson		7	1
	Worcester		1.2	2
Clark	Beaver		3	1
	Colby		5	1
Columbia	Fountain Prairie		6	1
Dodge	Oak Grove	1	7	1
Door	Egg Harbor		3	1
	Sturgeon Bay	1	1	1
	Washington		2	1
Dunn	Eau Claire		6	1
	Menomonie		6	1
	Spring Brook	1	2	1
Eau Claire	Brunswick		6	1
	Eau Claire, city	1	1	1
	Fairchild		2	1
	Lincoln		5	1
Fond du Lac	Ripon, city and town	2	2	2
Grant	Boscobel and Marion	1	1	1
Green	Albany		8	1
Green Lake	Green Lake, and Metomen, Fond. Co.		15	1
Iowa	Dodgeville		8	1
	Highland	2	8	2
	Pulaski	2	1	2
Jackson	Garden Valley		6	1
Jefferson	Cold Spring and Koshkonong		3	1
	Sullivan	1	8	1
Juneau	Kingston		5	1
	Lindsa and Summit		9	1
	Plymouth and Wonewoc		6	1
	Seven Mile Creek		4	1

TABLE No. XXV. — *Distribution of Dictionaries* — continued.

COUNTIES.	TOWNS.	Depart- ments.	No. of dis- trict.	No. of cop- ies.
Kewaunee	Ahnapee	1	1	1
	Montpelier		5	1
La Crosse	Onalaska	1	1	1
La Fayette	Fayette	1	3	1
	Willow Springs		1	1
Lincoln	Pine River		4, 5, 6	8
Marathon	Be gen		4	1
	Brighton		4	1
	Hull, and Colby, Clark Co		1	1
	Hamburg		8	1
	Spencer		8, 5	2
	Texas		2	1
	Wausau, city	4	1	4
Monroe	Byron		8, 6	2
	Oakdale		5	1
Oconto	Langlade		1	1
	Pensaukee		5, 6	2
	Peshigo	8	1	3
Outagamie	Appleton	7	1, 2	7
	Bovina		4	1
	Maine		2	1
Pepin	Durand	8	3	8
Pierce	Trenton		4	1
Polk	Apple River		1, 3, 4	8
	Balsam Lake		3	1
	Black Brook		6	1
	Clayton		1	1
	Lincoln		6	1
	Luck		2	1
Richland	Richland Center	2	2	2
Rock	Janesville, city	6	.....	6
	Plymouth		8	1
Shawano	Green Valley		1, 3	2
	Lessor, Hartland, etc.		1	1
Sheboygan	Holland		3	1
	Sheboygan		5	1
	Sheboygan, city	7	.....	7
Taylor	Chelsea		1	1
	Little Black		4	1
Trempealeau	Hale		5, 6	2
	Sumner		8	1
Waukesha	Genesee	1	2	1
Waupaca	Fremont	1	3	1
	Lind and Waupaca		1	1
Waushara	Leon		2	1
Wood	Centrallia, Pt. Edwards and Seneca ..		3	1
	Marshfield		1	1
	Port Edwards and Seneca		5	1
	Rudolph		5	1
	Seneca		2	1

TABLE No. XXVI.

DICTIONARIES SOLD.

STATEMENT showing the districts to which dictionaries have been sold during the year ending December 10, 1877.

COUNTIES.	TOWNS.	Departm'ts.	No. of the district.	No. copies.
Calumet.....	Chilton.....	.....	2	1
	Stockbridge.....	.....	2	1
Chippewa.....	La Fayette.....	.....	1	1
Clark.....	Eaton and Warner.....	.....	1	1
Columbia.....	West Point.....	.....	2	1
Dane.....	Christiana.....	.....	3	1
	Cottage Grove.....	.....	10	1
	Dunkirk and Albion.....	.....	5	1
	Rutland and Dunn.....	.....	7	1
	Windsor and Bristol.....	.....	5	1
Eau Claire.....	Eau Claire, city.....	1	8	1
Fond du Lac.....	A to.....	.....	9	1
	E dorado.....	.....	5	1
Grant.....	Beetown.....	.....	1	1
	Lancaster.....	.....	5	1
Green.....	Exeter.....	.....	1	1
	York and New Glarus.....	.....	2	1
Green Lake.....	Princeton.....	.....	12	1
Iowa.....	Ridgeway and Arena.....	.....	14	1
	Wyoming.....	.....	1	1
Jackson.....	Irving.....	.....	8	1
Jefferson.....	Concord.....	.....	4	1
	Koshkonong.....	.....	2	1
	Lake Mills ..	1	1	1
	Palmyra.....	.....	8	1
	Sullivan.....	1	8	1
Juneau.....	Plymouth and Wonewoc.....	1	6	1
Kenosha.....	Pleasant Prairie.....	.....	8	1
La Fayette.....	Darlington.....	.....	10	1
	Darlington.....	6	12	6
	Fayette.....	1	8	1
Milwaukee.....	Granville.....	.....	8	1
Manitowoc.....	Eaton ..	.....	1	1
	Manitowoc Rapids.....	.....	10	1
Marathon.....	Wausau, city.....	8	.....	8
Marquette.....	Packwaukee.....	.....	1	1
	Shields.....	.....	2	1
Outagamie.....	Dale.....	.....	8	1
Pierce.....	Maiden Rock.....	.....	8	1
Polk.....	Alden.....	.....	2	1
Richland.....	Buena Vista.....	.....	1	1
—	Richland Center.....	1	2	1
	Westford.....	.....	8	1
Rock.....	Plymouth.....	.....	8	1
	Spring Valley.....	.....	4	1

TABLE No. XXVI—*Dictionaries Sold* — continued.

COUNTIES.	TOWNS.	Depart- ments.	No. of the District.	No. of Copies.
Sauk	Excelsior		9	1
	Fairfield		2	1
	Ironton		1	1
Sheboygan	Greenbush		3	1
Trempealeau	Arcadia		6	1
	Trempealeau		3	1
Walworth	Bloomfield		4	1
	Delavan		1	1
	La Fayette		7	1
	La Grange		1	1
	Walworth and Delavan	10 & 2	1	1
Washington	West Bend		1	1
Waukesha	Lisbon		10	1
	New Berlin		3	1
Waushara	Co'oma		3	1
	Oasis		3	1
Winnebago	Nekimi		6	1
	Poygan		2	1
	Utica		3	1
	Winchester		2	1

COUNTY AND CITY SUPERINTENDENTS,

IN COMMISSION MARCH, 1878.

COUNTY SUPERINTENDENTS.

COUNTY.	NAME.	POST OFFICE.
Adams'.....	Jesse M. Higbee.....	Plainville.
Ashland.....	John W. Bell.....	La Pointe.
Barron.....	H. J. White.....	Rice Lake.
Bayfield.....	Jno. McCloud.....	Bayfield.
Brown.....	Miss Minnie H. Kelleher.....	Depere.
Buffalo.....	J. C. Rathbun.....	Gilmantown.
Burnett.....	John G. Fleming.....	Grantsburg.
Calumet.....	P. E. Skanen.....	Chilton.
Chippewa.....	John A. McDonald.....	Chippewa Falls.
Clark.....	John S. Dore.....	Neillsville.
Columbia.....	Kennedy Scott.....	Rio.
Crawford.....	M. E. Norris.....	Prairie du Chien.
Dane, 1st district.....	A. R. Ames.....	Door Creek.
Dane, 2d district.....	M. S. Frawley.....	Black Earth.
Dodge, 1st district.....	John T. Flavin.....	Watertown.
Dodge, 2d district.....	Arthur K. Delaney.....	Mayville.
Door.....	James Keogh.....	Sturgeon Bay.
Douglas.....	Geo. L. Brooks.....	Superior.
Dunn.....	Geo. Shafer.....	Menomonee.
Eau Claire.....	Miss Agnes Hosford.....	Eau Claire.
Fond du Lac.....	Ed. McLaughlin.....	Eldorado Mills.
Grant.....	Charles Harper.....	Platteville.
Green.....	Thos. C. Richmond.....	Monticello.
Green Lake.....	A. W. Willard.....	Manchester.
Iowa.....	Wm. A. Jones.....	Mifflin.
Jackson.....	T. P. Marsh.....	Hixton.
Jefferson.....	C. I. Collier.....	Rome.
Juneau.....	J. W. Wightman.....	Wanewoc.
Kenosha.....	Dan'l A. Mahoney.....	Kenosha.
Kewaunee.....	John M. Read.....	Kewaunee.
La Crosse.....	C. S. Stockwell.....	Onalaska.
La Fayette.....	C. G. Thomas.....	Darlington.
Lincoln.....	David Finn.....	Jenny.
Manitowoc.....	W. A. Walker.....	Manitowoc.
Marathon.....	Thos. Greene.....	Wausau.
Marquette.....	Richard G. O'Connor.....	Montello.
Milwaukee, 1st dist..	Thos. O'Herrin.....	Oak Creek.
Milwaukee, 2d dist..	Thos. F. Clark.....	Butler.
Monroe.....	N. H. Holden.....	Sparta.
Oconto.....	L. W. Winslow.....	Peshigo.

County Superintendents—continued.

COUNTY.	NAME.	POST OFFICE.
Outagamie	Patrick Flanagan	Appleton.
Ozaukee	Adolph Heidkamp	Ozaukee.
Pepin	J. H. Rounds	Durand.
Pierce	H. S. Baker	River Falls.
Polk	Marcellus Tozer	Little Falls.
Portage	C. L. Sutherland	Stevens Point.
Racine	Charles H. Sproat	Waterford.
Richland	David D. Parsons	Richland Center.
Rock (1st district) ..	John W. West	Footville.
Rock (2d district) ..	J. B. Tracy	Milton.
St. Croix	Miss Betsey M. Clapp	New Richmond.
Sauk	James T. Lunn	Ironton.
Shawano	Wm. S. mmers	Upham.
Sheboygan	B. R. Grogan	Plymouth.
Taylor	O. N. Lee	Medford.
Trempealeau	Miss M. Brandenburg	Trempealeau.
Vernon	O. B. Wyman	Viroqua.
Walworth	Fred. W. Isham	Elkhorn.
Washington	d. S. Barney	West Bend.
Waukesha	John Howitt	Waukesha.
Waupaca	L. L. Wright	New London.
Waushara	Jas. H. Tobin	Aurora.
Winnebago	F. A. Morgan	Oshkosh.
Wood	G. L. Williams	Centralia.

CITY SUPERINTENDENTS.

CITY.	NAME.
Appleton	A. H. Crukey.
Beaver Dam	James J. Dick.
Beloit	T. L. Wright.
Berlin	D. P. Blackstone.
Columbus	J. Q. Adams.
Fond du Lac	C. A. Hutchins.
Fort Howard	Dr. Wm. H. Bartram.
Grand Rapids	T. W. Chittenden.
Green Bay	J. D. Williams.
Hudson	Geo. D. Cline.
Janesville	R. W. Burton.
Kenosha	H. M. Simmons.
La Crosse	C. W. Roby.
Madison	Samuel Shaw.
Menasha	Silas Bullard.
Milwaukee	Jas. MacAlister.
Mineral Point	Thomas Priestly.
Neeah	J. R. Barnett.
Oconto	H. W. G. Ikey.
Oshkosh	Geo. H. Read.
Portage	A. C. Kellogg.
Prairie du Chien	A. C. Wallin.
Racine	O. M. Westcott.
Sheboygan	Joseph Bast.
Stevens Point	J. K. McGregor.
Waukegan	William Bieber.
Wausau	B. W. James.

ANNUAL REPORT
OF THE
WISCONSIN
GEOLOGICAL SURVEY

FOR THE YEAR 1877.

BY T. C. CHAMBERLIN,
CHIEF GEOLOGIST.

MADISON, WIS.:
DAVID ATWOOD, PRINTER AND STEREOTYPED.
1878.

ANNUAL REPORT.

1877.

To His Excellency, WM. E. SMITH,

Governor of Wisconsin:

SIR: I have the honor to submit herewith, in accordance with legal requirement, a brief report of the progress and results of the Wisconsin Geological Survey for the year 1877.

Most Respectfully,

Your obedient servant,

T. C. CHAMBERLIN,

Chief Geologist.

BELOIT, Dec. 31, 1877.

REPORT.

The evident purpose of the annual reports required by the law under whose authority the survey is being prosecuted, is to lay before the governor, the legislature, and the people, an outline of the progress made by the survey during each year, and a summary of its leading results, without attempting to present in detail the voluminous material accumulated, which, at the best, could only partially be given at so early a date as that designated for the rendition of the report. This view has been sanctioned by the action of successive legislatures, who have deemed it advisable to reserve the publication of details until they could receive careful study and be arranged in a systematic and convenient, as well as economical form, in the final report.

In accordance with this view, the present report will be made as brief as is consistent with the purposes it is designed to subserve, and the energies of the corps devoted to the elaboration of the more complete report.

In my last annual report, an outline of the work then remaining to be done was presented. The plan of work there foreshadowed has been carried into execution during the present year, as will be seen by the following outlines:

WORK ON THE COPPER RANGE IN BAYFIELD AND DOUGLAS COUNTIES.

The field work of the season was begun by Mr. E. T. Sweet, then of Madison, more recently of Colorado, in Bayfield and Douglas counties, on April 10, a date considerably earlier than that on which field work had been begun in previous years. The leading features of this survey are given in the following preliminary report by Mr. Sweet:

PROF. T. C. CHAMBERLIN, *State Geologist*:

DEAR SIR: I have the honor to submit, according to your request, the following brief summary of the principal facts connected with, and observed during, my late geological examination of a portion of Douglas and Bayfield counties.

Starting from Madison on the 6th of April, I arrived at Ashland on the 9th following. Here I engaged the services of a packer, and at once proceeded to Bayfield, where provisions and necessary supplies were obtained for a trip of two weeks to Superior City. A short distance from Bayfield, I entered the unbroken forest and established my first working camp at Siscawet lake, on Sec. 21, T. 50, R. 6 W. From here Siscawet river, and other neighboring small streams were followed to the shore of Lake Superior.

Proceeding westward, Bark, Cranberry, Flag and Iron rivers were followed, either up or down, from near the source to the mouth or near the mouth of each. Red sandstone is found within one or two miles of Lake Superior, in the banks of these streams. Ledges of the same rock also often cross the channels of the streams near the lake, causing falls of from two to ten feet in height. No exposure of any member of the Copper-bearing series was found along these streams nor in the highlands adjacent to them. At the Brulé river in Secs. 23 and 24, T. 48, R. 10 W., the Copper-bearing rocks are largely exposed. A half mile east of the river there are cliffs from 60 to 80 feet high. The rock is quite distinctly bedded, dipping to the southeast at an angle of 35° . Following the "range" east from this point, it drops down from 80 to 100 feet in the course of a mile, to the general level of the country, and is not again found prominent. That the Copper-bearing rocks form the nucleus of the peninsula of Bayfield, there can be little doubt; but the enormous thickness of the drift completely hides them from view. West of the Brulé river, there are numerous ridges or exposures of the Copperiferous rocks, all trending in a nearly N. E. and S. W. direction. As the "Copper Range" of Douglas county, consisting of the lines of exposures of the Copper series, extending in a more or less broken line from Black River Falls, on Sec. 21, T. 47, R. 14 W., to the Brulé river, on Sec. 23, T. 48, R. 10 W., was quite thoroughly examined by myself in the summer of 1873, while connected with the State Geological Survey, I did not deem it necessary to minutely

re-examine it. Some attention, however, was given to the old mining locations.

The Percival mine, on Sec. 22, T. 18, R. 10 W., was worked in the fall of 1873, by Gen. Sargent, with a small force of men.

A couple of shafts were sunk, not over twenty or thirty feet, however, and these with a little surface stripping constitute the extent of the work upon the vein. The "surface show" was exceedingly flattering, good stamp and barrel work being found near the surface. Several large nuggets of copper were encountered in stripping the vein, and in test-pitting. The work, however, was not continued a sufficient length of time to determine with precision even the character of the vein. The country rock is a dark, grayish, fine-grained melaphyre, often very amygdaloidal. The vein is from one to four feet thick, and is probably bedded, as it appears to dip with the formation. Epidote, with a small proportion of calcite, laumonite and native copper, make up the vein matter. I can see no reason why this mine should not prove to be a profitable one.

The Wisconsin mine, locally known as the Edwards mine, is located on Sec. 2, T. 47, R. 13 W. This mine is upon a true fissure. Two perpendicular shafts have been sunk upon the vein, one sixty and the other eighty feet, at an expense of about \$14,000. At the bottom of the shafts the vein has a width of six feet, and carries a small amount of native copper. A large number of fine specimens have been taken out. I am informed by Capt. Edwards that a half ton of copper was taken out in sinking one of the shafts the first fifteen feet. I consider this property as the most desirable mining location yet operated in Douglas county, and it is probably the only one upon a true fissure vein. Very little work has been done upon this mine since 1865.

The Fond du Lac mine is located upon Sec. 8, T. 47, R. 13 W. It has long been abandoned. Two shafts were sunk upon a bedded vein, dipping 30° to the S. E. A small amount of copper was found in the hanging wall. There was never a "good show" at this location, although about \$12,000 were spent here.

The Copper Creek mine was worked by Gen. Sargent in 1864-5. It is located at the junction of the forks of Copper Creek on Sec. 15, T. 47, R. 14 W. Here the most extensive mining operations of Douglas county have been carried on. Four shafts from 30 to 40

feet in depth were sunk in 1846 by the North American Fur Co. Gen. Sargent sunk three shafts, and ran adits and tunnels from them, involving an expense of between \$30,000 and \$40,000. After thorough exploration, the location was abandoned as worthless. Copper to a considerable extent is scattered through the wall rock and vein matter. The veins, of which there were supposed to be several, were found to vary greatly in character at different depths. I am unable to indicate with certainty more than one. That is bedded and dips 55° to the S. E. It is an epidote vein, carrying calcite and quartz.

At Black River Falls, one and a half miles from Copper Creek, exploration to a limited extent has been carried on.

The river here descends in a nearly perpendicular leap of 160 feet. The vertical walls of the gorge for a half mile below the falls are nearly 175 feet high, affording a magnificent opportunity for examining the rock and taking a section, as the sandstones and conglomerate unconformably overlie the Copper-bearing rocks. A gorge existed at this place without doubt, previous to the laying down of the Lake Superior sandstone. It was filled with conglomerate and breccia from the Cupriferous rocks, and red sandstone, which have subsequently been but partially removed from the ancient gorge, in the formation of the present gorge. Detailed sections of the different beds of the Cupriferous series, so far as I am able to make them out, together with others taken on Middle river, Aminicon river, Copper creek and Black river, showing the relationship between the Lake Superior sandstones and Copper-bearing rocks will accompany my detailed report.

Upon arriving in Superior, I thought best to spend a day along the banks of the St. Louis river, and determine, if possible, the relationship between the slates and quartzites so largely exposed on that stream, and the Copper-bearing rocks located to the south and east of them. I find the strike of the slates to be always nearly east and west, and the dip always to the south at an angle varying from 36° on Sec. 11, T. 48, R. 16 W., the most southern exposure, and junction with the Lake Superior sandstones, to 58° on Sec. 5, T. 48, R. 16 W., just north of Thompson.

Although the junction of the slates and Cupriferous rocks was not observed, it is highly probable that the former are Huronian, and underly the Copper-bearing rocks, which are found a few miles

to the south. In the vicinity of Fond du Lac, and also southeast from Superior, evidences of ancient lake terraces are quite plain. I place them at about fifteen feet, eighteen feet, one hundred and twenty feet, and an indistinct terrace between three hundred and four hundred feet above the present level of the lake. From Superior City, I went to Copper creek and Black River Falls, and succeeded in tracing the "Range" to a branch of Black river, two and one-half miles from the falls of Black river. West from that point no exposures could be found. One and a half miles above Black River Falls there is a fall of thirty-one feet over greenstone. Above here for eight or ten miles along Black river there are no outcrops. I have been informed by Mr. Geo. Stuntz, who conducted the government surveys in nearly all of the townships in Douglas and Bayfield counties, that he saw only one exposure in townships 44 and 46, ranges 14 and 15 west. In 45, 15 W., he saw an outcrop of one of the members of the Copper-bearing series, which contained a few small veins, from which he pounded two or three small nuggets of native copper. As he was unable to locate it closer than the township, I thought it absurd to lose any of my limited time in searching for it.

From Copper creek, I followed the range nearly to the Wisconsin mine. Taking a S. E. course, I left the most southern exposure of the Cupriferous series that I found in following up the Aminicon river, in Sec. 15, T. 47, R. 13 W. After ascending the Aminicon river to Sec. 11, T. 46, R. 13 W., I made an excursion to the west six miles, to Aminicon lake, but found nothing worth mentioning except cedar, and tamarac swamps. Continuing in a southward direction, I struck the head waters of Moose river, and followed that stream nearly to the mouth. There is no outcrop of the Cupriferous series along the stream north of township 44. Although in that township they are frequently met with, but were not carefully examined by me on account of high water, and also from the fact that the southern boundary of my district is the south line of township 45. From Moose river, I went to Gordon's, at the mouth of the Eau Claire, for fresh supplies, and proceeded thence across the Barrens a short distance to the east of St. Croix lake, to near the head of Brulé river. After spending a day in canoeing upon the stream, the banks were followed to the mouth of the Nebagamin, and three days spent in searching for exposures along

the banks of that stream, and the Brulé, as well as in the adjacent country. I went to the exact spot of the sandstone exposures as mentioned by Mr. Ives in his manuscript report, but found only banks of sand and sandstone pebbles. Upon either side of the Brulé there are the most distinct terraces I have ever seen. A mile down the river from the mouth of the Nebagamin there are three; the first is 30 ft, the second 80 ft, and the third 190 ft above the present surface of the river. From the top of the highest terrace to the corresponding one on the opposite side of the stream, the distance is about one mile. As the stream is ascended a few miles, the terraces are not so much elevated above the stream, showing that the descent of the river is greater and the flow of water swifter now than in former times. Evidences of terraces were also observed upon the head waters of Flag and Iron rivers.

From the Brulé river, I took an easterly course to Spider lake, in Sec. 20, T. 47, R. 8 W., and from there a northeasterly course to Moose lake, in Sec. 5, T. 48, R. 6 W. Nearly the entire distance from the Brulé river to about ten miles northeast of Moose lake is across the Barrens. The soil is almost entirely composed of sand, and supports a very scanty growth of timber, locally known as Jack and Norway pine. Fires have run over the Barrens until there are now large tracts upon which there is no living vegetation. The surface of the country is very uneven, it being cut up by "potash kettles" from twenty feet to thirty feet deep, and often these are not more than two or three times as far across the top as they are deep. They appear to follow general lines of depression.

Small lakes are frequently met with from 100 to 150 ft. below the summit of the Barrens. Within a radius of three or four miles from Spider lake, they seem to be within 20 ft. or 30 ft. of the same level, and usually much nearer the same level. Other lakes in the vicinity of Moose lake are much larger, and others to the southeast lower. From Moose lake I proceeded to Ashland, passing across semi-barrens nearly to Fish creek, Sec. 9, T. 47, R. 5 W. I arrived at Ashland on the evening of the 9th of May.

It will be observed from the foregoing account, that I have passed over a considerable portion of the district assigned me for exploration. My district is bounded as follows: Lake Superior on the north; the town line between ranges 5 and 6, from Lake Superior

to the N. E. corner of T. 48, R. 6 W. on the east; then on the south east by a line running from the N. E. corner of T. 48, R. 6 W., to the S. W. corner of T. 40, R. 9 W.; on the south by the line between townships 44 and 45, and on the west by the state line. The area occupies upwards of 1,450 square miles. There are but three roads in the district, and they are impassable for wagons during the summer months. As I have had less than two months in the examination of the district, and as all supplies, specimens, etc., must necessarily be carried on men's backs, the duties have been unusually arduous. I think that enough has been done to enable me to map down with a considerable degree of accuracy, the formations, and the productive beds of the Copper series. No mines have been opened, and no productive veins have been discovered at a greater distance than 2,000 feet south of the line of the junction of the Copper-bearing rocks with the Lake Superior sandstone.

I have complete notes, with which, added to my manuscript report, I shall at an early day make out my final report. I have full notes on timber, soil, drift, and animal life, as well as upon subjects of ordinary geological importance.

E. T. SWEET.

MADISON, May 14, 1877.

WORK ON THE COPPER-BEARING SERIES OF THE UPPER ST. CROIX RIVER.

During the summer of 1876, the late lamented Moses Strong examined a belt extending from St. Croix Falls northeastward to the vicinity of Lake Superior. Between this belt and the territory examined by Mr. Sweet, there remained a triangular area yet to be investigated. Mr. Strong began the investigation of this region on April 20th, accompanied by Mr. David Caneday, who had assisted him during the previous year. Starting from St. Croix Falls, the party examined, in their progress northward, a belt of territory contiguous on the northwest, to that investigated last year. When the upper St. Croix river was reached, it was made the base alike of operations and of supplies, a boat having been transported to its head waters for that purpose. The main portion of the remaining area, not known to be covered by drift or Potsdam sandstone, was examined by lateral excursions from the river during its descent.

In the progress of these investigations, a large number of out-

crops of the several members of the Copper-bearing series, consisting of melaphyres, amygdaloids ("traps"), conglomerates, sandstones and shales, were located and examined, and data and specimens for further study taken. In a number of instances native copper was observed, and concerning some of these, Mr. Strong speaks in favorable terms. True fissure veins, as well as those amygdaloidal or other mineral-bearing strata known among miners as "veins," were found. Several fine deposits of shell marl, that in the future unfoldings of this region will doubtless prove valuable, were examined by Mr. Strong, and other subjects of practical and scientific interest received attention, and important facts relating to the general geological structure of the region were gathered.

In previous years Messrs. Irving and Sweet, of the survey, had determined that the great synclinal trough, in which a portion of Lake Superior lies, is extended westward through Northern Wisconsin. To determine, as nearly as possible, the exact location of this is a question of both scientific and practical importance. The data accumulated is believed to be sufficient for the settlement of this question with approximate definiteness.

As this trough is but the downward folding of the strata constituting the Copper-bearing series, it was to be presumed that the same strata would occur on the two sides, though they were known to be much concealed by drift. To identify and correlate these was likewise a question of importance, which would require for its solution the combined observations of all parties engaged upon the Copperiferous series. Much valuable data bearing upon this subject was collected by Mr. Strong in the course of the explorations above indicated.

It has been impossible, in the pressure of other duties, for the writer to give to the notes left by Mr. Strong more than a general examination, and of necessity this outline very inadequately represents the work accomplished in the St. Croix region.

THE SURVEY IN BARRON AND CHIPPEWA COUNTIES.

In 1876, Mr. Strong made a reconnoissance of the northern part of Barron county, to determine the general position and relations of the interesting quartzites and pipestones of that region. The facts then gathered strengthened the belief that had been previously entertained, that these represent the Huronian, or Iron-bear-

ing series, and as the Penokee range was known to approach within less than 60 miles on the north, it became an important question to determine the extent of the formation, and its relations to the northern series. It had been planned that Mr. Strong should more carefully examine the formation in Barron county, and explore thence northward as far as means of access would advantageously permit, and afterwards, by means of the Chippewa river, and its tributaries, reach the more northern and inaccessible portions of the region to be surveyed. In accordance with this the work in Barron county was begun on the 31st of May. The known area occupied by quartzites and pipestone was considerably increased and much important information collected.

After completing this work, it remained to explore the east and west slope of the Upper Chippewa valley. It was planned that the eastern sides should be examined first, in the hope that the duties of the chief geologist might permit him to join Mr. Strong, at his earnest desire, in the examination of the area lying between the western extremity of the Penokee series and the quartzites of Barron county, about which so much interest had now gathered.

It should be remembered that the whole region is one of dense and continuous forest, untraversed, for the greater part, by roads of any kind, and that the only means of access is by boats on the streams, or by packing through the wilderness. In the latter case, all provisions, instruments, articles of outfit and shelter, as well as specimens, must be borne on the backs of men. As most of the exposures lie along the streams, the former method was, for obvious reasons, adopted so far as practicable.

It was proposed to traverse first, the tributary known as the Jump river and afterwards the Flambeau branches — but this plan was necessarily changed, as indicated by the following communication, *the last* received from our deeply lamented associate:

STEVENS POINT, August 15, 1877.

DEAR CHAMBERLIN:—I leave here tomorrow morning, and on account of very low water, I find it necessary to make the trip up the north fork of the Flambeau first, and thence down the south fork to Fifiel.

You may send letters to me to Fifiel station W. C. R. R., care of the station agent, via Stevens Point.

Very truly yours,

MOSES STRONG.

The subsequent events are clothed with inexpressible sadness. The following account was prepared immediately after the melancholy event, by one whose facilities for obtaining the exact facts, exceed my own, and whose painful interest caused every incident to impress itself with unwonted force and vividness upon his feelings and memory.

"Mr. Strong left Stevens Point on Thursday, the 16th, accompanied by William P. Gundry of Mineral Point, and John Hawn of Stevens Point, a guide whom he had hired, who was familiarly known as "Sailor Jack," and who was an experienced woodsman, and an expert in canoe navigation. The party went by railroad to the crossing of the Flambeau river, where they arrived about six o'clock P. M. The next day — Friday — was spent in procuring boats and other preparations for ascending the river. Mr. Strong obtained a light skiff, made of riven white cedar, which he thought well adapted for the purposes for which he wished to use it. He also obtained a birch bark canoe, in which was to be transported the supplies and camp equipage for the party of three.

"They commenced the ascent of the Flambeau on Saturday morning and continued it for nine or ten miles, without any remarkable incident, until nearly three o'clock, P. M., when they came to some rapids, supposed to be in Sec. 28, T. 41, R. 1, E. The rapids were about 150 feet from the foot the head. The bed of the river was filled with numerous rocks, over and about which the water rushed rapidly. "Sailor Jack" took the lead in the bark canoe and its freight, followed by Mr. Strong and young Gundry in the cedar skiff. Jack had reached the head of the rapids, or nearly so, as the others were entering upon the ascent, Mr. Strong was standing in the bow of the skiff using a long light pole for propelling it, while Gundry was sitting in the stern using the oars for the same purpose. Near the foot of the rapids was a rock, past which they pushed the skiff far enough, so that the current struck its bow and turned it around the rock, in such a manner that the whole force of the current striking the boat broadsides, tipped it over. As it was about going over Mr. Strong jumped from it into the water, and stood upon a rock in the bed of the river, over which the water was about three and a half feet deep and came up to his waist. Immediately below the rock where he was standing and holding on to the skiff the water was twelve feet deep, into which

Mr. Gundry went, as the skiff upset. At that instant he hollowed to Mr. Strong: "I can't swim;" who replied: "Hold to the boat." Gundry held on at first, but in attempting to get a better hold, or in some way, lost his hold of the boat, and was carried into the water, into which he was sinking. Simultaneously, the skiff went down stream, and Mr. Strong left his position of comparative safety, and was immediately in the deep water, and sunk to the bottom of it, to rise no more.

"Why he left the place where he was standing and let the boat go, is a matter of conjecture. One theory is that he slipped and could stand there no longer, but this is not as probable as is the theory of the men who were engaged in searching for his body, which is that as soon as he saw that his friend Gundry had lost his hold of the boat, and was sinking, he threw himself into the deep water, in the vain (as it proved) effort to save his companion from drowning. He was a good swimmer, very self confident, and self reliant, and would not have been likely to apprehend any disaster to himself in the effort to save his friend, and if he had, the apprehension would not have deterred him."

"The reason why he did not reach Gundry is very satisfactorily explained by Gundry himself, who says that while he was under the water, he distinctly saw Mr. Strong with his legs drawn up, as in a sitting position, and his arms bent in front of his breast, in which position he sank, and his body was in this position when found. It therefore would seem quite certain that in his effort to save Gundry, Mr. Strong was seized with cramps, which deprived him of the power of swimming, and resulted in his own drowning, and the certainty is increased by the fact that his body was found on the bottom of the river, not more than thirty or forty feet from where he had been standing.

"That Mr. Gundry escaped drowning is almost miraculous. He drifted down the river until his feet struck a sand-bar, which enabled him barely to get his head above the surface of the water. Here he stood in water up to his neck, until he was rescued by Jack Hawn. As soon as Jack heard the cries, he left his canoe at the head of the rapids and ran to the foot of them, where he saw Gundry's head above the water, and the skiff floating down stream. He immediately rushed into the water and secured the skiff, and with it rescued Gundry from his peril.

"The time of the accident was five minutes to three, as indicated by the watches of both the young men, which were stopped at that time by being submerged. The body of Mr. Strong was found at six o'clock on Sunday evening, in $8\frac{1}{2}$ feet of water, having been twenty-seven hours in the water. It might probably have been found sooner, but for the erroneous supposition of those engaged in the search, that it had drifted further than proved to be the fact."

At the time the crushing news was received, his father, the Hon. Moses M. Strong, was at Stevens Point, and, through a generosity and courtesy that commands our warmest admiration, a special train was placed at his disposal by General Manager E. B. Phillips, of the Wisconsin Central R. R., whereby he was enabled to reach, at an early hour, the scene of the disaster.

The remains were conveyed to Mineral Point, where they were laid to rest, amid the profound sorrow, not alone of kindred and friends, nor of the community by which he was so highly esteemed, but of the entire commonwealth in whose service he had fallen.

Of the history and character of our lamented associate, I deem it appropriate to speak more at length in another portion of this report.*

The loss to the survey, though immeasurably less than the unspeakable affliction to the smitten family, is very great. Mr. Strong's careful notes, even up to the very hour of his death, were all recovered in a legible condition; yet, though they were taken with that painstaking care that so prominently characterized his work, they can never receive at the hands of another that fullness and completeness of elaboration which they would have received from their author.

Section 6, of the organic law of the survey provides that the salaries of the corps "*shall be for services actually performed and for time actually spent in the work.*" In obedience to this injunction, the payment of the salary of Mr. Strong ceased with the installment for the month in which he was drowned.

That the remainder of the salary thus withheld should be made good to the widow and children, thus suddenly bereft of their dependance for support, needs neither argument nor precedent, though amply supported by both, and I deem the simple statement of the facts a sufficient recommendation to the legislature to do all

*See Appendix.

that it legitimately can to mitigate a loss that, even in its financial aspects, is largely beyond repair.

RE-ORGANIZATION.

The loss of so important a co-laborer caused a serious embarrassment to the plan of operations above outlined. It was at once evident that before another party could be organized and placed in the field, so much time would necessarily elapse that it would be impossible to complete the work contemplated. Two parties were therefore, with some difficulty, organized; one in charge of Mr. F. H. King, to whom was entrusted the examination of the valleys of the two Flambeau rivers, and the other under Mr. F. H. Brotherton, who was charged with the exploration of the territory on the west side of the Chippewa river.

WORK ON THE FLAMBEAU RIVER.

The plan pursued by Mr. King in the examination of the Flambeau region was the same as that adopted by Mr. Strong. The north fork of the Flambeau was ascended to the mouth Turtle river, when that stream was examined to the point where it leaves the heavy drift region, after which the ascent of the Flambeau was resumed. The lake region on its headwaters was examined sufficiently to ascertain the character of the drift accumulations, which exclusively occupy it and effectually conceal the underlying rock formations. Passing across to the headwaters of the south fork, or Dore Flambeau, the examination of the formations along it was accomplished in its descent.

Before the examination of the main river, below the junction of the two forks, was completed the cold weather had so far advanced as to close the stream with ice and compel the party to abandon their boat and complete the journey on foot, which was accomplished on the 14th of November.

In the progress of this work, fifty-nine outcrops were located and examined, and specimens taken for more critical examination in the laboratory. Of these, thirty-six occur in the north fork of the Flambeau, twenty-one on the south fork, and two on the Turtle river. The rocks represented in these consist of granites, gneiss, mica shists, syenites and hornblende-bearing rocks. They undoubtedly all belong to the great Laurentian series. The strike is quite

uniformly northeastward, varying from N. 35° E. to N. 80° E. To this there are one or two apparent exceptions. From the varying dip, it appears that the strata are much folded, and three or more anticlinal axes seem to be indicated. The whole territory drained by the two Flambeaus has been subjected to powerful glacial action, and an immense sheet of drift covers the whole region, except where subsequent erosion of the streams has cut through it and exposed the rocks. These drift accumulations, and the modifications to which they have been subjected, were made subjects of study, the results of which will be given in the more complete report. The timber and the soils also received attention, and the distribution of each was mapped, so far as the nature of the work would permit.

WORK ON THE WEST SIDE OF THE CHIPPEWA RIVER.

The explorations under Mr. Brotherton revealed what had, in a measure, been anticipated; that the region between the Chippewa and Nemakagon rivers, from Barron county to Lake Nemakagon, is almost universally covered with deep drift, which effectually conceals the underlying formations and greatly embarrasses the determination of their character, and renders the results of examination correspondingly less positive and satisfactory.

The drift, and its clothing of soil and vegetation, received due attention. The most important result relating to the rock formations, was the finding, in Sec. 16, T. 38, R. 8, W., a ledge of red, granular, and, in part, conglomeritic, quartzite, in every respect resembling those of the pipestone region, southward, and undoubtedly belonging to the same series.

This lies about thirty-five miles west of south of the southwestern extremity of the Penokee series, as previously traced. The strike of this quartzite is given by Mr. Brotherton as S. 50° W., and the dip as 20° S. E., or, in other words, its strike is approximately parallel to the Penokee series, and its dip in the opposite direction.

SURVEY OF THE PENOKEE RANGE.

Besides the examinations in earlier years, a careful detailed magnetic and geological survey of the portion in the vicinity of Penokee Gap, and westward to Nemakagon lake was made last year.

During the present season this work has been extended over the eastern portion of the range to the Michigan boundary. It was planned that Prof. Irving should extend the careful survey made by him at Penokee Gap eastward to the Potato river, and that Mr. C. E. Wright should examine that portion lying contiguous to Michigan, with whose formations he was especially familiar. The first part of this plan was carried out in full by Prof. Irving, as will be seen by consulting the following report, which gives an outline of this important work.

MADISON, December 24, 1877.

Prof. T. C. CHAMBERLIN, State Geologist :

SIR : I present you herewith, according to the law, my annual report as Assistant State Geologist.

My last annual report bears date December 23, 1876. From that time until the middle of July, 1877, I continued to be occupied with the work of preparing and seeing through the press my description of the "Geology of Central Wisconsin," which forms part of the recently issued Vol. II of the final reports of the survey.

The legislature of the previous winter having ordered the continuance of the survey for an additional year, it was thought right to extend the detailed work begun in the summer of 1876, so as to cover the entire length, in Wisconsin, of the Huronian belt or "Iron Range" of Ashland and the adjoining counties. In accordance with this plan, that portion of the Iron Range which lies between the passages of the main Bad river and its Opinike or Potato branch, was assigned to me. Nearly the whole region watered by the systems of the Montreal and Bad rivers, had already been investigated by the parties under my charge, in 1873 and 1876, and the district now to be examined was already well known ground, much of it having been traversed twice. This previous knowledge was an indispensable to the detailed work which it was now proposed to do.

In accordance with our understanding, I proceeded to Ashland on the first of August, having secured the services of Mr. Paul B. Wood, surveyor and engineer to the Peshtigo Lumber Co., as woodsman and compassman. Mr. Wood's long experience in surveying in the woods and his skill in the use of instruments, were of the greatest assistance. Having hired an Indian packer and laid in

a good stock of provisions, we went first, by rail, to Penokee Gap. In the summer of 1876, the detailed topographical and magnetic mapping of the vicinity of the Gap had been carried northward as far as a line crossing through the middle of the north half of Sec. 11, T. 44, R. 3 W. Where this line meets the west line of Sec. 11, is a narrow ledge of slaty rock, some hundreds of feet in length from east to west, which rises abruptly on all sides to a height of 17½ feet above the low ground at its foot, and from the summit of which can be obtained one of the very few extended views afforded by this densely wooded country.

Beginning with this rock, a measured geological, topographical and magnetic section was carried northward along the section line 5½ miles to the railroad, in T. 45, R. 3, W. The section thus made covers the remainder — about half a mile in horizontal width — of the slaty, Lower Huronian, or Iron-bearing series, the uppermost layers of which are to be seen as a fine-grained, gray, hornblende slate, about five hundred paces north of the corner of sections 2, 3, 10, 11, T. 44, R. 3, W. Further north, is crossed a belt of rocks showing large ledges of a coarse, pink, feldspathic granite, entirely surrounded by others of a dark colored fine to very coarse-grained rock, much of which is a gabbro, or diabase, and which preponderates in amount over the granite. Further north still, the section crosses the melaphyrs of the great Copper or Keweenaw series, and ends on the railroad track near the crossing of Silver Creek, Sec. 10, T. 45, R. 3, W. From here we returned southward, along the railroad track, to Penokee Gap, passing on the way the large ledges of granite and diabase which show along Bad river, in sections 19, 30, and 31, of T. 45, R. 2, W., 6 of T. 44, R. 3, W., and 1 of T. 44, R. 3, W. These ledges had all been examined in 1873, but were now carefully relocated and re-examined under the light of greater experience.

The result of this work is, then, the obtaining of two new and carefully measured lines across the widest part of the interesting, and, as yet, somewhat doubtfully related, series which intervenes between the true Huronian and Keweenaw rocks. The belt of country occupied by this series narrows as it is followed eastward, until, at the Montreal River, it has almost disappeared, the Keweenaw and Huronian here approaching closely to one another. The same thing is true of the western extension of this belt, for at

the west line of T. 44, R. 5 W., the slaty Huronian rocks lie not more than a mile south of ledges of amygdaloidal greenstones and melaphyrs of the Keweenaw series. About a dozen lines have now been run across this belt at different places along its whole length, and each of the streams crossing it has been followed, besides which numerous scattering outcrops have also been located, so that I shall be prepared, after a careful study of all the results, and microscopic examination of the specimens, to give a full description of the series, as also to come to a reliable conclusion with regard to its geological relations.

Reaching Penokee Gap again, we began with the eastern side of the detailed work of the previous year, on the east line of Sec. 14, T. 44, R. 3 W., and spent about four weeks in mapping the Iron-bearing series as far as the passage of the Potato in the western part of T. 45, R. 2 E. The plan adopted for this work was to cross the iron belt, which, although quite sinuous in its course, preserves still a general east and west direction, curving more and more towards the north as it is followed eastward — from north to south at distances of about half a mile, using the section lines as much as possible. On each of the crossing lines stations were established at every hundred steps, and at every station the aneroid barometer, the variation of the magnetic needle, and the time, were carefully observed, a simultaneous series of barometrical observations being carried on at Ashland. The lines were begun at points far enough to the south, on the Laurentian rocks, to be out of the influence of the iron or magnetic belt of the Huronian, and were extended northward far enough, not only to be out of the influence of this belt in that direction, but also to determine the presence or absence of any other similar belt or belts. Some of the lines, moreover, were extended further than the rest, so as to pass on to the next series of rocks, allusion to which has been made above. Other subordinate lines of observation were frequently run across the sections in an east and west direction, and all the lines were controlled by constant reference to section corners and quarter posts. All outcrops were of course examined and located, and specimens were taken for subsequent study, particular attention being given to the magnetic belt traversing the centre of the Penokee Range. The largest outcrops are found where the several branches of Bad river break through the range from the southward. At each one of these gorges

the work was carried into greater detail, in order that the true succession of the various layers might be made out.

Many interesting facts were developed during this detailed work, one or two of which may be mentioned here. The exact junction of the Huronian and Laurentian series was found at the gorge of Potato river, where a cliff-side over 100 feet in height, and over half a mile in length, is traversed near the middle by the highly inclined contact-line between the "silicious slate," one of the lower members of the Huronian, and a greenish chloritic gneiss of the Laurentian. The silicious slate inclines at a high angle to the north, whilst the gneiss layers dip to the south and strike in a direction oblique to that of the slate layers. It is worthy of note that the two lowermost layers of the Huronian, as seen at Penoque Gap and for many miles to the eastward, the "white quartz" and "silicious dolomitic marble," are here entirely absent; but this fact is quite in accord with the relations everywhere to be observed between these two widely distinct rock series. Another fact of importance is the steady lessening of the disturbing influence exerted on the magnetic needle by the iron belt of the Huronian, as it is followed eastward. In its more western extension, the variations observed on and near this belt are commonly as much as 90° to 180° , the disturbing influence extending, moreover, for a long distance to the north and south of the line of greatest disturbance. By the time the Potato river is reached, the variations never approach 90° , and are to be observed along a very narrow belt only. Still further east the attraction lessens yet more rapidly, and on the Montreal river you have yourself observed that it is essentially lost. This lessening in magnetic attraction does not necessarily indicate a corresponding decrease in the amount of iron present in the rocks of the iron-belt, but rather that the magnetic oxide is giving way more completely to the non-magnetic, or sesquioxide, which is always present, in greater or less quantity, even where the magnetic attractions are greatest. The outcrops observed bear out this conclusion; for a considerable quantity of very highly manganiferous red hematite is to be seen at points all along from the passage of Tyler's Fork, eastward.

Yet another point of interest brought out by this year's work is the apparent demonstration of the non-existence of other magnetic belts in the more northern or upper portions of the Huronian se-

ries. Hematite, or specular ores, may exist here, but the gaps in the series of layers have now been so largely filled up, that it appears probable that any discoveries of ore which may be made in the future will be on the already known magnetic belt.

Completing the work assigned us early in September, we returned to Ashland to find your request that I should extend the detailed examinations over the space still remaining between the Potato and Montreal rivers. When I went into the woods it was understood that this piece of work would be done by Mr. C. E. Wright, and I had made such arrangements with regard to my classes at the University that it was now necessary that I should return to Madison.* I would have been glad to go back to the iron range at the beginning of the season of 1878, had you not thought it right to have all work finished up before the date of the legal conclusion of the survey.

Since the close of field work in September, I have been occupied in the study of notes and specimens, and in the preparation of maps, etc., for my report on the Lake Superior regions, which will appear in Vol. III of the final reports. The following is a very brief outline of the plan of this report, with some explanations of present interest:

I. THE GENERAL ROCK STRUCTURE OF THE COUNTRY BORDERING LAKE SUPERIOR. This will be a brief discussion of the grand features of the several rock systems of this region, with their relations to each other and to the extensions of the same groups in other parts of the Lake Superior basin. These northern regions have been separated, since the earliest geological times, by the Laurentian mass of the northern part of the state, from the regions further to the south, and, as a result, have had an entirely independent rock growth, and one contrasting greatly with that of all other parts of the state.

II. THE GEOLOGY OF ASHLAND COUNTY, AND THE ADJOINING PORTIONS OF LINCOLN AND BAYFIELD COUNTIES. This district includes all the country lying between the south line of township 44 and the shores of Lake Superior, and stretching from the Mon-

*It should be understood that on account of his engagements at the University, Prof. Irving declines a portion of the salary to which he would otherwise be entitled.

trear river on the east to the west line of range 5 west, on the west. It includes also the group of the Apostle Islands with the adjacent coast of Bayfield county. The report begins with a full description of the topographical features of the region — including its river systems, altitudes, soils, vegetation, etc. — after which the several rock formations which cross the country in parallel bands, the oldest being the furthest removed from the lake shore, are taken up in the following order:

(1.) *The Laurentian Rocks.* These constitute the main mass of the Archæan of the northern half of the state, and are the southernmost of those of the region under consideration. They include a number of kinds of gneiss and granite, with some schists; but, so far as yet known, no metallic ores. A careful study of these rocks is, nevertheless, of economical importance, since they limit on the south the iron-bearing formation. A considerable number of exposures have been examined, the largest of which are to be seen along the Marangouin, Bad, Tyler's and Potato rivers, near to where these streams pass onto the Huronian.

(2.) *The Huronian Rocks.* In this series, which includes the iron belt of the Penokee Range, a great number of distinct layers have been recognized, up to a total thickness of several thousand feet. Each of these layers has its peculiar lithological characters, and is found occupying a constant position throughout the whole length of the Huronian belt. In view of the great importance to future mineral explorers of an accurate recognition of these various layers, no pains have been spared to fix their characters as fully as possible. A typical suite of specimens has been sent to Mr. A. A. Julien, of New York, for microscopic examination and description. Mr. Julien's long experience in this kind of work on the equivalent formations in Michigan and other states, will enable him to furnish exhaustive descriptions. In addition to this, I shall myself examine microscopically a large number of specimens from all portions of the series. The specimens to be distributed by the Geological Survey can, moreover, always be referred to by those interested.

The report on these rocks will be accompanied by four atlas plates, upon which the exact positions of the various layers will be mapped on a scale of nearly four inches to the mile. These plates will show also the deflections of the horizontal magnetic needle at

the various stations occupied, as above explained; and will give a large number of vertical magnetic geological cross sections, with contours based upon the aneroid observations. The several gorges through the iron range, where the exposures are especially large and important, are mapped on a still larger scale. The practical importance of these various maps can hardly be exaggerated, because, by their aid, the mineral explorer can tell, within a few steps each way, where lies the belt upon which only it is of any use to explore. The enlarged map of Penokee Gap will develop the existence of a fault or very sharp bend in the strata at that place, which has led several geologists to believe in the presence of two distinct magnetic belts, when in fact there is but one.

The Penokee Iron Range has now been examined in greater detail than any other area of corresponding extent in the state. The larger part of it has been two or three times traversed by my parties, besides which Mr. C. E. Wright has made an independent detailed examination of that portion which lies west of Penokee Gap, and the chief geologist himself has examined the easternmost end. Every ore out-crop has been visited, sampled, and the samples analyzed. As far as purely geological work, without the aid of digging, is concerned, it may be safely said that the region is practically exhausted. The *outcropping* ores of the whole belt are, in general, lean and siliceous, though in places nearly rich enough to be of value, always remarkably free from hurtful impurities, and always highly manganiferous. It must, however, be remembered, that an outcropping *rich* ore is a great rarity, since, on account of the comparative softness, it is almost invariably crumbled and overlaid by loose material. Large portions of the magnetic belt are without outcrop; the investigation of these, the geologist now hands over to the mineral explorer, who will find in the maps which we furnish, a reliable guide as to where to explore.

(3.) *The Upper Huronian Rocks.* This is the series of diabases and other allied rocks, including also granites, etc., which has been mentioned above. No ores are known to occur in these rocks, but they are of great interest as regards their relations to the other adjoining formations. It is not at all improbable that more or less of this series should be thrown in with the Keweenaw or Copper-bearing rocks.

(4) *The Copper-bearing or Keweenaw series.* This great rock

series, which forms the synclinal trough in which a large part of Lake Superior lies, constitutes the mountainous backbone of Keweenaw point, from where it can be traced westward, along the south shore of the lake, to the Wisconsin boundary at the Montreal river. Further west, the series recedes from the lake shore, but, spreading out over an area many miles in width, extends entirely across the northern part of Wisconsin. In the district under consideration, the copper rocks are generally much covered by drift or lacustrine clays, except at the passages of the several northward flowing streams — the Montreal river, the Little Potato river, the main Potato river, Tyler's Fork, Bad river, Trout brook (the outlet of English lake), Silver creek, Brunschweiler's river (outlet of Bladder lake), the Marangouin river, and White river. On the larger ones of these streams the exposures are on a grand scale. These streams have been followed, and the succession of layers determined. Maps will be furnished of several of the gorges, showing also the locations and geological relations of the views and beds on which copper mining has been attempted. Mention was made in my last annual report of the supposed identification of the Iron river (Michigan) silver horizon, at the point where the copper rocks cross the Montreal. Samples of the rock selected here in 1876 have since been assayed, and the presence of silver, in minute quantity, shown. A large series of specimens from the Copper series is now under examination by Professor Pumpelly, who has given much attention to the same formation as developed in the important copper-mining districts of Portage lake and Keweenaw Point, Michigan; and it is hoped that we may be able to furnish nearly as good a guide to explorers on the Copper series, as that offered to those interested in the Iron-bearing formation.

(5) *The Lower Silurian Sandstones.* These underlie the entire coast region of Ashland and Bayfield counties, besides forming the basement rock of the Apostle Islands. Outcrops of the formation are numerous, and a great many have been examined. At two points a very fine brownstone is quarried, and the same rock can, without doubt, be obtained at other places.

(6) *The Quaternary Deposits.* These are developed on a grand scale in all of the Lake Superior region, and consist of two well marked divisions, of which the older is the true Glacial Drift, the newer being the Champlain lacustrine clays. The Glacial

Drift is difficult to investigate on account of the densely wooded nature of the country, but it is present in great force, immense boulders studding the surface everywhere, and masks the rocks with a heavy coating, especially on the northern faces of the ridges. The lacustrine clays form the shores of lake superior, extending also many miles inland, and having a great thickness. They are finely exposed to view in both the lake cliffs and on the sides of the many streams which make gorges through them. A great many of these exposures have been closely examined, and some interesting facts developed, among which not the least important is the existence of a great deal of clay quite as well adapted to the making of brick as any of the well known clays of eastern Wisconsin, which, like those of Lake Superior, are commonly very rich in carbonate of lime.

In addition to the Atlas Plates of the Huronian Series, and other maps mentioned above, the report will be accompanied by a general geological map of the whole region, another of cross-sections illustrating its structure, a special map of the Copper Series, and a number of cuts to be placed in the text.

ROLAND D. IRVING,

Assistant State Geologist.

Mr. Wright, who now sustains the relation of Commissioner of Mining Statistics to the state of Michigan, found himself unable to give to the Wisconsin survey the time necessary to make the examination of the eastern portion of the range, and this work was undertaken by the Chief Geologist, in person. In this he was efficiently assisted by Mr. A. D. Conover, of Madison.

The plan of the work was essentially the same as that which had been carried into effect on the adjacent portion of the range, as above described, and need not be repeated here. Aside from the accurate mapping of the iron belt and the associated rocks, some of the more important results — and they are deemed quite important — may be briefly indicated:

Eastward from the Potato river, the magnetic attractions rapidly diminish, and become closely associated with a belt of black slate lying north of the silicious schists that form the crest of the ridge at many points west of the Potato river. East of the Fourth Principal Meridian this black slate attains greater topographical prominence, and at many points forms the crest of the ridge.

The maximum magnetic attraction is usually manifested on the southern margin of its outcropping portion. It is itself magnetic, owing to the dissemination through its mass of grains of magnetite.

When the Gogogashugun river, the main tributary of the Montreal, is reached in T. 46, R. 2 E., the magnetic disturbance has almost entirely disappeared. This disappearance might be supposed to be due to the absence of iron ore, but the evidence presented on the Gogogashugun river clearly indicates that, on the contrary, the loss of magnetism is due to the replacement of the magnetite by the non-magnetic hematite and limonite ores.

At the falls of the Gogogashugun a most interesting section may be made out. The falls themselves are due to the barrier imposed by the silicious schists that here form the lowest exposed member of the Huronian series. By going back from the falls a short distance, guided by the indications of the loose blocks of rock on the surface, the party were fortunate enough to uncover, at their first attempt, the exact junction between the Laurentian and Huronian series. The Laurentian member consists of a peculiar gneissoid rock, altogether like that which occupies a similar relation at Penokee Gap. Its strike is N. 67° W., and its dip 49° N. E. The Huronian rock lies in absolute contact with this, not even being separated by a fissure. Indeed, at one point, the silicious material that formed the Huronian rock had, at the time of its deposition, so insinuated itself into the irregularities of the surface of the gneiss that the two formations are interlocked and a *hand specimen* was obtained, one portion of which is Laurentian gneiss and the other Huronian schist, the two being, of course, unconformable. It is doubtful whether a similar specimen has ever previously been secured.

The base of the Huronian series as here exposed is formed by grey and purple silicious schists, interleaved with which are occasional purplish layers of a clay-like texture. Some of these approach a pipestone and raise the question—which of course they are not competent to answer—whether they are not the approximate equivalents of the pipestones of Barron county, which sustain a somewhat similar relation.

The general strike of these schists is N. 55° E., and their average dip about 60° N. W. By comparison with the Laurentian strata, it will be seen that the two formations strike across each

other at a large angle and dip in opposite directions. The surface width of this stratum is 317 feet.

The schists are overlaid by more massive beds of white and red quartzites, which occupy a belt at the surface about 200 feet in width. These graduate into a series of alternating layers of quartzite and iron ore, which are but partially exposed and soon become entirely concealed by drift. The iron ore consists of red hematite and limonite.

Where exposed, these have been largely eroded, owing to their softness, giving rise to intervals between the projecting layers of quartzite. The average resisting power of these alternating layers is less than that of the adjacent quartzites and silicious schists, to which fact is doubtless due their deeper erosion and limited exposure. Wherever they outcrop, the amount of quartzite is much greater than that of the associated iron ore, otherwise they would undoubtedly have been more deeply eroded and concealed. There is also present with the iron ores a considerable relative proportion of manganese.

The special significance of these facts is this. To the westward where the attractions are strong, magnetite and specular hematite are associated in a precisely similar way with quartz rock, and occupy a corresponding horizon. It becomes quite evident then, that the loss of magnetism in this eastern portion is not due to an absence of iron ore, but to a replacement of the magnetic and specular ores by the softer red hematite and limonite. It is highly probable that all these ores were originally of the same character, and that their present variation is due to different degrees of oxidation and hydration. Oxidation of the magnetic ores would produce the hematites, and hydration of these, the limonite. We may be justified, then, in suggesting that the eastern portion of the range has furnished, at some time in the history of the formations composing it, freer access of air and water, and is therefore presumably of more open texture. This harmonizes with the fact that the range in this portion has suffered more erosion as shown by its flattening out eastward. It is also to be observed that the rock-horizon of these hematites and limonites east of the meridian does not project on the crest of the range, and sometimes occupies a more or less evident depression between the silicious schists on the south and the magnetic slates on the north, where both outcrop or approach

the surface. It is along the line of this depression and between the schists and slate, that the greatest probabilities of the existence of workable ore are presented, and the facts, in my judgment, justify a prudent and intelligent expenditure of means in testing the region by the interested parties.

CREVICE SURVEY OF THE LEAD REGION.

Section 2 of the law authorizing the survey, provides for "a careful topographical survey of the Lead region, for the purpose of ascertaining, as far as possible, the amount of denudation and the exact amount of mining ground at each locality," but it makes no specific mention of the lead-bearing crevices.

This omission, taken in connection with the amount of work specifically required to be done, which was very large in proportion to the time and funds granted, as experience has shown, led the Chief Geologist in charge of the survey at its beginning, to the opinion that he was not at liberty then to order a detailed survey of the mineral-bearing crevices of that region, and instructions were given to Mr. Strong, who examined the region in 1873 and 1874, in accordance with this view, so that, while a geological and topographical survey was made, the metalliferous crevices were not mapped. When the survey was placed in charge of the writer in 1876, the large amount of unfinished work in other regions, and the limited amount of time and funds then at his disposal, rendered it unadvisable to undertake this work, although he had from the beginning regarded it as authorized by the general provisions of the law, and as very important to a satisfactory elucidation of the lead deposits. But the last legislature having very generously extended the time for the completion of the survey, this work was undertaken. After consultation with Mr. Strong, who had made the geological and topographical survey of the region, and who would have been a most competent party to have executed the proposed work, it was deemed advisable that he should continue his unfinished work on the Copper-bearing series of the north, in accordance with his preference, and that the survey of the crevices should be placed in the hands of Mr. James Wilson, Jr., who had had many years' experience in this and allied work in Grant county.

In 1860, the geological survey then in progress, under Prof. J. D. Whitney, located the greater proportion of the crevices then worked,

but from the limited facilities afforded, the work was not, in this respect, exhaustive and, in some instances, as was almost inevitable under the circumstances, was based on inaccurate information. The data of this survey have been verified and adopted so far as found trustworthy, and 866 additional mineral bearing crevices or patches have been surveyed.

In addition to the location and direction of the crevices, the nature of the deposit, its depth, its position in the crevice and relation to the water level, the location of bars and various other facts bearing upon the origin and character of the metalliferous deposits have received attention, and statistics supplementary to those previously obtained were collected. The following table, prepared by Mr. Wilson, shows the geographical distribution of the work, besides giving in a convenient form some valuable information. The first column of figures gives the number of crevices surveyed during the year at the several localities indicated. The second column gives the number adopted from the survey of 1860, and the third the total number of important crevices at the places named. The remaining columns show what proportion of these are approximately north and south, east and west, quartering, in patches, and irregular, respectively.

TABLE OF CREVICES.

NAMES OF THE LOCALITIES.	No. of crevices located.	No. from survey of 1890.	Total Number.	No. of E. & W. crevices.	No. of N. & S. crevices.	No. of quartering crevices.	Patches.	Irregular crevices.
Muscalunge.....			123	110	1	11	1	...
Nip and Tuck.....	1	28	28	22	6		1	...
Beetown.....	21	16	37	35	1	1		...
Hackett.....		4	4	3	1			...
Little Grant.....	1		1	1				...
Pigeon.....	46		46	21	7	5	11	2
Hurricane Corners.....	3		3	3				...
Boice Prairie.....	8		8	4	4			...
Potosi and Dutch Hollow....	43	7	49	43	6			...
Buena Vista and British Hollow	29	2	31	13	1	16	1	...
Rockville, Pin Hook and Red Dog.....		22	22	19	1		2	...
Menomonee, or Jamestown.....			40			40		...
Lower Menomonee, or Kilbourn.....	2	17	19	19				...
Fairplay.....	27	45	72	72				...
Shawneetown.....		6	6	6				...
Hazel Green.....			621	314	214	93		...
Buzzard's Roost.....	19	5	24	5	4	16		...
Benton.....	80	138	268	114	29	25		...
New Diggings.....	38	165	203	129	55	19		...
Shullsburg.....	30	84	114	45	24	35		10
Wiota.....	20	7	27	23	5			...
Sugar River (Exter).....	5		5	5				...
Moundville.....	29		29	28		1		...
Between Moundville and Porter's Grove.....	5		5				5	...
Porter's Grove.....	40		40	4	24	10	2	...
Dodgeville.....	83		83	12	35	6	1	29
Van Metre Survey.....	65		65	47	3		15	...
Mineral Point.....	79		79	57	14	4	4	...
Lost Grove.....	12		12	5	4			...
Diamond Grove.....	19		19	6	6	6	1	...
Linden.....	61		61	32	20	2		7
Highland.....	25		25	13	4	5	1	2
Centreville.....	3		3	2				1
Wingville.....	15		15	15				...
Crow Branch.....	10		10	2	3	5		...
Washburn.....	2		2		2			...
Miffin.....	23		23	3	6	14		...
Platteville.....	53	39	92	82		6		...
Whig.....	15		15	18		2		...
Brush Hill.....	5		5	3	2			...
Total number of crevices..	866	.....	2,232	1,327	482	322	45	51

Two of the above at Highland, and one in the town of Little Grant, are in the Lower Magnesian limestone: the remainder are in the Trenton and Galena limestones.

Six of the above named localities, viz.: Hackett, Hurricane Corners, Rockville, Pin Hook, Red Dog and Shawneetown have not yet been visited, but from information received, the ranges are thought to be located correctly so far as they are given in the old survey. There are, however, many more paying crevices than those given in the above list.

The sickness of Mr. Wilson, and the unusually unfavorable fall weather and early closing of the season, curtailed the work, and a number of localities yet remain to be visited.

It was deemed advisable to make a more elaborate and critical survey of some of the more important and significant districts, for the purpose of showing more exactly and specifically the method of the mineral deposit, the character of the openings, and their relations to the topography, to the formations, and to the drainage systems. Such a survey of the Muscalunge Diggings, in Grant county, has been made. By completing the careful surveys he has made during the progress of mining in past years for the parties owning the mines, Mr. Wilson now has a complete underground survey of the crevices belonging to what is locally known as the "65 foot opening," except a few of the first opened, which were filled with waste material. The exact direction of the summit or watershed of each ridge and of the ravines, the slope of the surface, the flow of the water in the streams, and of the underground currents of water in the diggings, and their discharge into openings below, have been carefully observed.

MINING IN THE LOWER MAGNESIAN LIMESTONE.

Mining operations having been recently prosecuted in the Lower Magnesian limestone, near Highland, by Mr. Ohlerking, an examination of the locality was made by the writer in September, and subsequently the drifts were carefully surveyed by Mr. Wilson, who located them upon the surface of the ground, and made a topographical survey of the vicinity.

The mine is located on the slope of a ridge, the summit of which is formed by the Trenton and Galena limestones, the steep slope by the St. Peters sandstone, and the base by the Lower Magnesian

limestone. The shaft penetrates 45 feet of the sandstone, and about an equal depth of the Lower Magnesian limestone.

From near the base of this shaft a drift has been extended along an opening in a somewhat irregular course, as follows: in a direction N. 1° E., a distance of 8 ft. 8 in.; thence N. $45\frac{1}{2}^{\circ}$ E., 17 ft.; thence N. $82\frac{1}{2}^{\circ}$ E., 31 ft. 8 in.; thence N. $69\frac{1}{2}^{\circ}$ 14 ft. 8 in., where it divides, one portion continuing on in a course N. 80° E., for 16 ft. 6 in., where the working terminated at the time of our visit. The other portion extends N. 28° E. for 15 ft. 4 in., where it terminates.

A branch drift commences at 30 feet from the shaft and extends N. 5° E., for 15 feet 4 inches, when it turns to N. $13\frac{1}{2}^{\circ}$ W., and continues 14 feet 8 inches, when it changes again to N. 16° E., for a distance of 16 feet, the limit to which it had been worked. An older drift has a direction through about 90 feet of its course of N. 16° E., connecting at its southern end with one extending 30 feet in a direction N. $63\frac{1}{2}^{\circ}$ W. The entire extent of the drifts was about 280 feet.

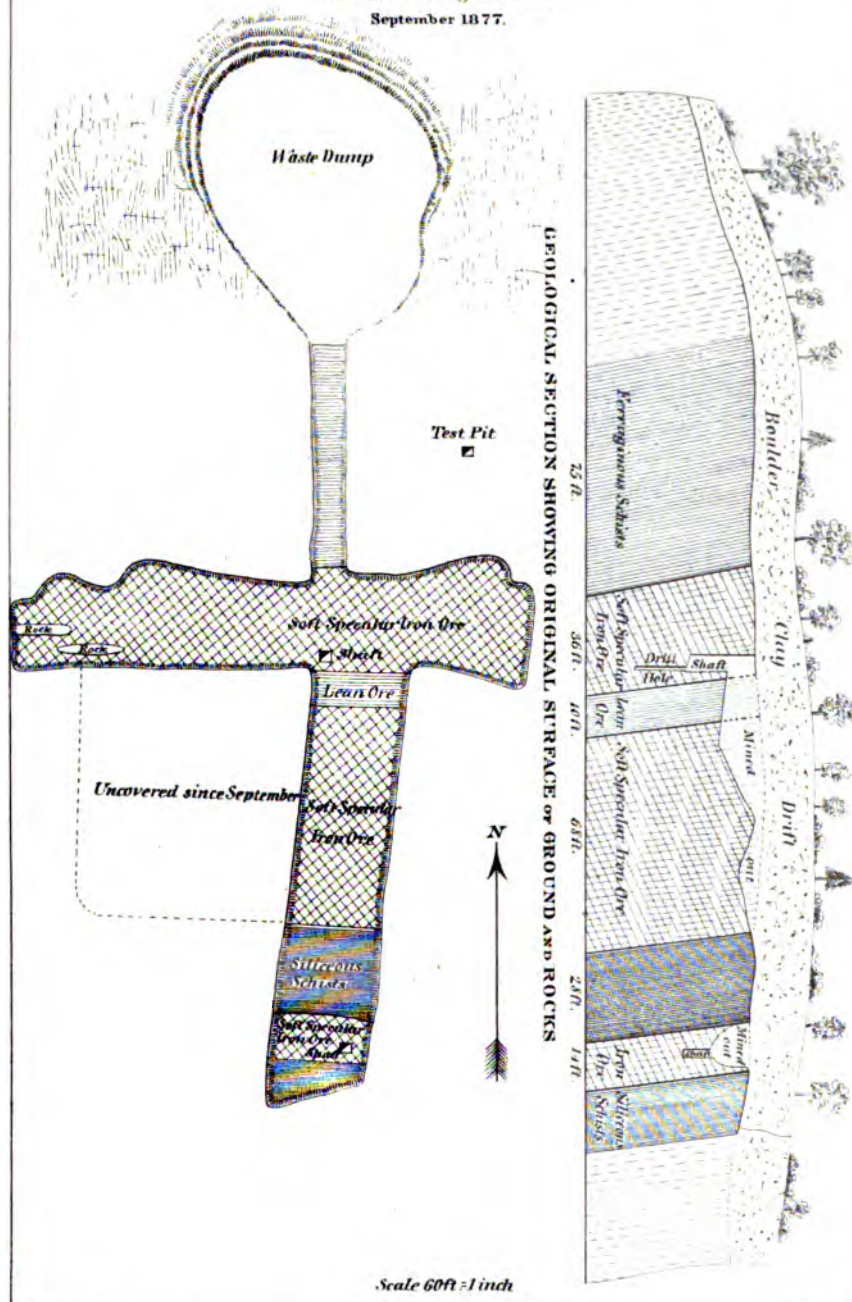
The opening was largely filled with clay and decomposing rock, and contained considerable quantities of the reddish, slightly cohesive substance, known among miners in some localities as "joint clay." The wall rock is not well defined, the clay and decomposing material apparently graduating into the unmodified strata. At the extremity of one of the drifts there was an irregular space between the unmined clay and the arching roof of the opening, and I was informed that this was a common fact. That which is regarded as the cap rock, consists of a layer of silicious dolomite about one foot in thickness, over which lies a stratum of greenish blue clay shale of somewhat irregular thickness, averaging perhaps six inches. The openings probably had their origin in fissures around which the rock has decomposed, giving rise to the present clay filling. The lead ore was mostly taken from within the clay, being neither at the bottom nor top. I extracted a piece, however, that was firmly imbedded between two undisturbed layers of rock. The ore seen was chiefly in large cubes, considerably worn or corroded on the surface, and often coated with the carbonate of lead. The amount raised was stated by Mr. Ohlerking to be about 5,000 pounds. Independent testimony to the amount of about 3,000 pounds was obtained. I am informed by Mr. Ohlerking that mining has been resumed.

These leading facts are given at this time in advance of the full

SKETCH OF COMMONWEALTH IRON MINE

by
Chas. E. Wright M.E.

September 1877.



report and discussion of the subject, because of the numerous inquiries that have been made respecting this enterprise, and the general interest that is felt in the subject.

SURVEY OF THE PINE RIVER IRON DISTRICT IN OCONTO COUNTY.

The eminent desirability of a continuation of the investigation of this promising region was indicated in my last report. Special arrangements were made with Major T. B. Brooks and Mr. Chas. E. Wright to continue the work that had been in progress under their charge in previous years. Both of these experts have been in the field in person. A brief outline of the important developments in their district will be found in the accompanying report of Mr. Wright.

PROF. T. C. CHAMBERLIN, *State Geologist*:

SIR: In compliance with your request, I herewith submit to you the following preliminary report of the work performed this season in Oconto county. The outlook in the Menominee river district, from an economic standpoint, is much brighter than it ever was before, and it has been thoroughly demonstrated that Wisconsin has one iron mine — the Commonwealth — that has more ore in sight than did any of the Lake Superior iron mines at its stage of development. The formation dips high to the south. The ore is of a soft steely specular variety, which, in a shaft, gradually becomes harder as they sink in depth. An average sample collected by myself at every six inches across the first 36-foot vein — see diagram of the mine — afforded, after being pulverized and thoroughly mixed, a little more than sixty-three per cent. of metallic iron.

This is certainly very good, especially when we consider that this was across the original upper surface of the ledge, and was taken without any regard to quality.

By consulting the sketch, it will be seen that there were uncovered last September three beds of ore, which are respectively thirty-six, sixty-eight, and fourteen feet in width, giving an aggregate thickness of over one hundred feet, measured at right angles to the bedding planes.

The beds of ore are alternated by strata of lean ores, ferruginous and silicious schists. The mine is very favorably located on a high broad ridge, and the lands along this range are covered with

fine hardwood timber, and the soil, a rich sandy loam, is well adapted to farming purposes.

The Chicago and Northwestern Railway Company, with their usual promptness to assist in the development of any new country contiguous to their lines, are now making a reconnoissance of a railroad route to this mining section. Nothing appears wanting to transform this recent isolated, unprofitable portion of the state, into a busy iron center. The existence of large and paying deposits of iron ore can no longer be questioned by the most skeptical, and one fact is worthy of note here, that, notwithstanding the apparently exaggerated reports that were circulated during the past summer, not a single person, as far as I can learn, has visited this locality without being agreeably disappointed.

At the Eagle mine, nearly two miles north of the Commonwealth range, the formation dips to the north. Considerable exploring has been done on this property, and the results should encourage the owners to do more. A small amount of work immediately to the north of their present openings would add greatly to their knowledge of this deposit. It is in my own judgment, an equivalent of the Commonwealth series, though as to its extent or value, hardly sufficient work has been advantageously performed to warrant the expression of a decided opinion. North of this range a little less than two miles passes another iron belt; and south of the Commonwealth, between it and the Pine river, are two other iron ranges. All these iron belts, I consider, were originally of the same geological horizon. I will not attempt to give any hypothesis of the structure of this region, preferring to wait until I have carefully worked up my field notes taken farther to the west. The plan of work adopted was to run parallel north and south lines, eighty rods apart, from the granite south of Pine river to nine miles north, on the eastern portion of our work, but gradually lessening the length as we progressed westward, owing to the northwesterly trend of the formations. In this manner we completed our work to the east line of range 15 east. On all these lines were observed the magnetic attractions, both with the dipping needle and solar-dial compass. We also noted the rocks and kinds of timber, the quality of the soil, and the topographical features of the country passed over. Just here it may be stated that the incompleteness and "general crookedness" of the United States govern-

ment linear surveys caused us much trouble at first, until after learning, "by leg-weary experience," that the usual method of these, frequently, justly censured surveyors, was to "go around" a block of four sections at a time, blazing a tree now and then, so that, in case they should become bewildered, they might, by a careful retracing of their steps, aided, perhaps, by the compass, find their way out again. In this manner, they would manage to see two sides of each section; but the result is, that some of the sections are nearly a mile and one-half on one side, and less than a mile on the opposite side. This is no exaggeration. Another fact which may greatly aid explorers is, that where there is a large amount of swamp lands laid down on the United States plats, it usually signifies that the lines were never run, and instead of swamp lands, one is just as likely to meet with fine hardwood as swamp.

Soon after entering range 18, the formations generally assume an average course of N. 65° W. The iron-belts already mentioned cross ranges 17 and 16, and I hope when our field notes are carefully worked out, to be able to locate very nearly where they cross the different sections. It must be remembered that these ores are chiefly specular, and have only slight attraction for the needle. We came upon several belts of magnetic attraction, some of which could be readily followed, one in particular, that crosses the N. W. $\frac{1}{4}$ of Sec. 36, the N. E. $\frac{1}{4}$ of Sec. 35, the S. $\frac{1}{4}$ of Sec. 26, and diagonally through Sec. 27, T. 40, R. 16. Our limited time, however, did not permit of tracing these belts, but only to note where they intersected our north and south lines of observation. What would add greatly to the rapid development of this section of the country, would be the careful location of these iron-belts. If this were done it would, in a measure, prevent the often worse than useless waste of time and capital which is only too common to all new mining districts. It appears to me, viewing the situation from an unbiased standpoint, and knowing, too, something of the great value of our Lake Superior mining interests, and how largely they add to the revenues of Michigan, and, too, how many millions of dollars, one may safely assert, have been thrown away in foolish adventure, when a little systematic exploration would have proved the value or worthlessness of property, that the interests of the state of Wisconsin would be best promoted by doing some more

detail work within the area already gone over, and by extending the field farther to the northwest.

Very respectfully yours,

CHAS. E. WRIGHT,

Iron Expert.

WORK IN ST. CROIX, DUNN AND ADJACENT COUNTIES.

Mr. L. C. Wooster was assigned the investigation of the above region last year, and during the present season some additional field work and the elaboration of the data collected have been in progress. A summary of the results obtained is given in the accompanying report.

Prof. T. C. CHAMBERLIN, *Chief Geologist*:

SIR:—In accordance with your instructions, the exploration of the area assigned me has been in progress during portions of the summers of 1876 and 1877. This area includes St. Croix and Dunn counties, and portions of Chippewa, Eau Claire, Pepin, Buffalo and Pierce counties—over two thousand square miles.

The following is a tabular view of the formations examined:

- | | | | |
|--------------|---|------------------------------|--|
| I. Paleozoic | { | 1. Upper Silurian (wanting). | |
| | | 2. Lower Silurian. | {
a. Trenton limestone.
b. St. Peters sandstone.
c. Lower Magnesian limestone.
d. Potsdam sandstone. |
| II. Archæan. | | | |

The coarse granite at Chippewa Falls is the only exposure of Archæan rocks visited, and, so far as known, is the only outcrop in the above district.

The Potsdam sandstone was found to be very fully represented, over seven hundred feet being included in the sections in preparation. In the midst of all the diversity in lithological characters, the following *persistent* horizons were discovered:

The numbers indicate the distances below the Lower Magnesian limestone.

a. Upper Calcareous Band.—This varies greatly in thickness, and is the probable northwestern equivalent of the Mendota limestone near Madison; 75 to 85 feet.

b. Lower Calcareous Band.—The limestone characters and the thickness are more uniformly persistent than in a; 145 to 195 ft.

c. Hudson Trilobite Beds. — Quite rich in trilobites and brachiopods, including one new species of the former, with several undetermined ones; 150 to 200 ft.

d. Glauconite Layers. — These comprise those layers which are very rich in glauconite. Crinoid stems were found in these at Hudson; 160 to 210 ft.

In b, c and d, the lesser distance from the Lower Magnesian is true for western St. Croix county, while the greater is nearer true for points east.

e. Eau Claire Trilobite Beds. — These hold at least seven species of trilobites — of which three are new — and a few brachiopods. These beds mark the lower limit of calcareous matter in the formation; 450 ft.

f. Eau Claire Grit. — These layers mark the upper limit of the coarse sandstones, almost conglomerates; 680 ft.

Work upon the Potsdam was commenced at Hudson, on Lake St. Croix, and for a time much difficulty was experienced in running parallels between the layers at Hudson and the layers exposed east and west of that point. But as data accumulated, it became evident that Hudson Bluff occupied the summit of an anticlinal axis trending S. S. W. The following are the elevations of the base of the Lower Magnesian in eastern St. Croix county, above Lake Michigan. Though the line of junction is not shown at all these points, the figures approximate *very closely* to the true elevation:

Stillwater, Minn.....	190 feet.
Hudson ..	330 "
Three and a half miles to the east	140 "
Marine.....	290 "
New Richmond.....	231 "
On Lake St. Croix (Sec. 24, T. 28, R. 20 W.), five miles S. of Hudson.	280 "

At Stillwater and Marine the upper layers of the Potsdam are present, but east of Hudson, the formation is not exposed for a distance of thirty miles, when the upper layers are shown with increased thickness. Along an east and west line in the vicinity of Hudson and Stillwater, the change of elevation in the upper layers of the Potsdam is nearly three times as great per mile, as the change of elevation of the same in eastern St. Croix and Dunn counties. This would indicate a disturbance in the position of the layers near Hudson, and, although this, with the above considerations, may not demonstrate the existence of an anticlinal with an accom-

panying synclinal to the east, yet they render the presence of the same highly probable.

The line of junction between the Potsdam and Lower Magnesian is usually well marked, the limestone characters extending below the line, rather than the sandstone above; but the transition is frequently abrupt. A brecciated layer is generally present in the sandstone, while the lower portion of the limestone is always brecciated.

In general, the lower portion of the Lower Magnesian is heavy bedded to massive, and frequently cavernous, while the upper portion is medium to thin bedded, and holds most of the chert. The layers of this portion are nearly horizontal above, but much curved or arched below, apparently being arranged in a series of mound-like elevations, five and six feet in height. The only fossils discovered are gasterpods, which were found both in the chert and in the upper layers. Near the line of junction with the St. Peter's sandstone the layers are frequently oolitic, and locally conglomeritic.

The transition to the sandstone is sometimes gradual and at others abrupt. When abrupt, from two to three feet of angular chert is said to be struck in wells, between the sandstone and limestone. In the vicinity of New Richmond, there appear to be bodies of sandstone in the upper portion of the Lower Magnesian, which may, possibly, represent the horizon of the Jordan sandstone of Minnesota. These are penetrated by but three wells in the neighborhood (Sec. 23, T. 30, R. 18 W.). The following data were obtained from Mr. Straight, owner of well No. 1 (No. 2 is owned by Mr. Church, and No. 3, by Mr. Robinson:)

	(1)	(2)	(3)
To rock	25 ft.; (about)	15 ft.;	10 ft.
In limestone,	28 ft.; (about)	15 ft.;	8 ft. ("thin slaty limestone").
Sandstone . . .	7 ft.; (about)	15 ft.;	12 ft.

These data were obtained from Mr. Straight while at New Richmond, and on visiting his well the following morning, we were so unfortunate as to find him absent from home. The material thrown from the well showed white and yellow sandstone and oolitic limestone; the latter evidently from layers near the upper line of junction.

At about the same horizon, a thin layer of white sand is shown

at New Richmond, and a similar one, only thicker, southwest of River Falls, Pierce county. At all points in the district, this horizon is marked by curving layers over and around mound-like elevations, indicating a period of disturbance or unequal deposition before the uniform horizontal layers above were laid down, and during which a sandstone may have been deposited in Minnesota and in favorable localities in Wisconsin. In central and eastern St. Croix county, on the Willow river, the horizontal beds of limestone have been partially removed, leaving the two to three feet of angular chert on the surface. The wells in this part of the county quite uniformly penetrate the limestone fifteen to twenty feet for water, striking it at the horizon of the New Richmond sandstone.

The much greater extent of the mounds in eastern Wisconsin, and the deposition of the St. Peters sandstone upon and around them, may indicate a continuance of the peculiar influences there during the time that the horizontal layers were deposited at the west, or that the deposition of sandstone at the east commenced before, and continued during the deposition of those layers.

Further than a nearly uniform thickness of one hundred and twenty-five feet, little of interest was discovered in the St. Peters sandstone. Frequently the upper portion was found sufficiently indurated to stand forth in vertical walls and columns, but usually the stone is quite friable.

In southern St. Croix and northern Pierce counties, the St. Peters sandstone is protected from denuding agencies by a few feet of Trenton limestone.

This limestone is quite fossiliferous and, where well exposed, carries at its upper portion two to four feet of blue shale, likewise fossiliferous.

The succeeding periods are not represented till we reach those of the Quaternary age. During this age the transition from one period to the other was so gradual that it has been found nearly impossible to draw a dividing line between the deposits of each; or even, in many instances, to distinguish between them, as the later must have received much of its material from the earlier. Glacial drift is believed to be everywhere present, but is not always shown at the surface.

Erratics of large size from the north were found on the tops of the highest bluffs and in the banks of the larger streams; in the one

case being more elevated than the later deposits, and in the other having been brought to view from beneath by erosion. The north-western portion of St. Croix county is traversed by a series of bluffs and kettle holes, with a few serpentine ridges, but I should hesitate to ascribe these to glacial action, were it not for the fact that morainal deposits have been found continuous with this series in the adjoining district. No striation or planing of rock surface was discovered, but glacial valleys are evident, especially to the north.

The lacustrine and fluvial deposits form numerous level tracts or prairies throughout the district, and, along the streams, have been cut into terraces, especially on the St. Croix and Chippewa rivers.

The erosion of these deposits during the Recent period gave two principal terraces to the large rivers, besides several of limited extent; and along these streams, where the drift was light, the erosion has continued till the rock has been left in vertical walls on each side, one hundred feet in height.

It may be a question, however, whether these gorges were not marked out, at least, during pre-glacial times. Observations upon the surface soils were continued through the two seasons, and it was found, that, though there is a less number of kinds in the district than in eastern Wisconsin, there is a greater diversity in the arrangement, the areas being detached and irregular.

The cause of this is evident, when we remember the close proximity of the Archæan formations, and the comparative thickness of sandstone and limestone exposed.

The tops of the limestone ridges and tablelands, being still covered to a great extent with glacial drift, are quite fertile, while the river valleys below in the Potsdam sandstone are nearly barren; isolated patches of clay here and there being the only redeeming feature. The large percentage of calcareous and argillaceous material, however, in many layers of the Potsdam, renders the valleys excavated by creeks in this formation, together with the other areas which receive the material brought down by showers from the same, the most productive tracts in the district. Observations upon the flora of the district were made by my assistant, Mr. E. M. Hill, and have been embodied by him in a report which has already been presented to you.

Here, as elsewhere, the character of the vegetation furnishes one of the best indications of the nature of the soil.

Other topics of interest were investigated, but as I have already extended this outline beyond its proper length, their consideration will be deferred till the final report

Respectfully yours,

L. C. WOOSTER.

GREELEY, *Colorado*, December 28, 1877.

WORK IN NORTH CENTRAL WISCONSIN.

WAUSAU, Wis., *January 7*, 1878.

Prof. T. C. CHAMBERLIN,

Dear Sir: In compliance with your request, I send you herewith a brief outline of the geological work done by me in this region. It is necessarily short, but will, I trust, meet the requirements of your report, as it indicates the nature and character of the work done, and describes the general features of the region.

Having previously collected supplies and suitable equipment, field work was commenced on the 25th of September, and the remainder of the month and first part of October was spent in an examination of the Eau Claire river and adjacent region. This stream was ascended to T. 33, R. 11 E., where the southern boundary of that moraine drift region, which seems to extend across the northern part of the district under consideration, was ascertained.

To the south of this unstratified drift region, a belt of country was observed, extending south in the Eau Claire valley to the southern half of town 30. This region is covered with a stratified drift, apparently to a considerable depth, and is distinguished by the flat or gently undulating character of the surface and absence of rocky outcrops or angular surface rock. The soil is very fertile and, except in swamps and creek bottoms, is everywhere covered by a luxuriant growth of hardwood, or hardwood and hemlock. South of the above belt, commencing in the southern half of town 30, extending through town 29, we meet with a tract of country in which drift material is light or absent. The topographical features are entirely different from the foregoing region, the general surface being hilly, and the valleys deeply cut. Rocky exposures and outcrops are frequent, and belong to the Laurentian series. Through Secs. 12 and 18, T. 29, R. 9 E., the river runs almost uninterruptedly over beds of Laurentian gneisses and schists. Extensive out-

crops of coarse red granite are also met with in this region. The soil is good, but often stony, and is covered by a growth of hardwood and hemlock.

South of this tract, through town 28, the surface changes, becomes level, and consists of a stratified drift, the soil being for the most part poor and sandy, the vegetation being Norway pine (*Pinus resinosa*).

After finishing the Eau Claire valley, an examination of the Rib river and adjacent territory was made. This stream was ascended to town 32, where the unusually low water prevented further progress in this direction. From the best sources of information, I think it probable that the southern limit of the morainic drift is about the middle of town 33, or near the sources of the Rib river.

South of this, we seem to have the same belt of stratified drift as on the Eau Claire; this extends south to about the northern boundary of Marathon county. South of this, we have a tract extending through towns 31, 30 and 29, in which the drift covering is light, the general surface, hilly and the valleys, deep cut. Rocky ledges and outcrops are common and seem to belong entirely to the Laurentian series. The soil is rich and fertile, and where not too stony, forms excellent farming land.

Examination in the Wisconsin river valley and its smaller tributaries has been carried up to the southern limit of town 32, and on Prairie river to town 33. The underlying rock, so far as met with, seems to belong entirely to the Laurentian series. The same topographical belts met with on the Eau Claire river can be traced here. First, the morainic drift region, the southern limit of which is probably between towns 33 and 34. Second, the assorted drift, extending south to the northern boundary of Marathon county, with probably here and there an isolated patch which rises above the general surface of the drift. Third, south of the last in town 30, a district of considerable elevation in which the drift material is light and sometimes absent, the surface characterized by high hills (100 to 300 feet) and deep valleys.

Examination on Pine river shows the underlying rocks to be Laurentian schists, covered with heavy stratified drift.

Examination of Trap river shows the underlying rock to be a coarse granite, generally of a red color, probably continuous with

that met with on the Eau Claire river, and which probably extends east and west for a considerable distance.

Examination of Marshall hill shows an underlying rock different from anything observed elsewhere in this region. It seems to be nearly related to the porphyritic rock met with in the hills immediately east of Wausau, and may possibly belong to the Huronian series. It seems to be an isolated tract, as rocks of undoubted Laurentian character surround it on all sides; fuller details in regard to this and other parts of the region will be found in the notes already forwarded. Notes on the vegetation have also been forwarded.

Before concluding, I wish to tender acknowledgments for the assistance of D. L. Plumer, Esq., of Wausau, a gentleman who has formerly been extensively employed as a surveyor in this part of the state, and who, in addition to the topographical knowledge thus acquired, has a natural taste for geological observation.

Yours respectfully,

A. C. CLARK.

SUMMARY OF FIELD WORK.

To foregoing constitutes an outline of the organization and prosecution of the field work during the year. It will be seen that eleven districts, of varying extent, have received investigation at the hands of an equal number of parties. All these parties, with a single exception, have previously been connected with the survey, and all have had experience in the special work which they have undertaken. Field work was begun nearly one month earlier, and continued nearly two months later, than in previous years, though no one party has been engaged continuously for so long a period as before, owing to the large number of districts to be examined, and the peculiar nature and relations of these, and the circumstances of the survey, that rendered it advisable to employ a larger number of parties than usual, the reasons for which have been already in a measure indicated.

The work has been guided by the experience of past years, and by such light as a familiarity with the field could give, and we trust that the results, when they shall be wrought out, will show that it has been prosecuted with vigor and success.

CHEMICAL WORK.

The analytical work of the survey has continued, as during last year, in the hands of Prof. W. W. Daniells, of the State University, and Mr. Gustavus Bode, of Milwaukee. The analyses which they have made will appear in the reports of the several parties for whom the work has been done, and will be there duly accredited.

MICROSCOPIC LITHOLOGY.

Within the past few years, there has been developed what may, perhaps, justly be called a new department of physical science. It consists of the determination of rocks and minerals by means of their optical properties, particularly as manifested by transmitted polarized light. Slices of rocks are made by suitable appliances so thin as to be, in a measure, transparent, and these, when examined under a microscope provided with the necessary optical adjustments, reveal many important characteristics not otherwise ascertainable. This method of investigation is peculiarly applicable to rocks whose constituents are so minute, or so blended, as to render determination by the usual method more or less unsatisfactory. To this class belong many of the rocks of our Copper-bearing series. Prof. Raphael Pumpelly, of New York, who adds to his accomplishments in this specialty, a thorough familiarity with the Cupriferous series in its most productive portion, and who has written an able treatise on the formation in the report of the Michigan Geological Survey, has very generously consented to examine, microscopically, specimens from the various portions of the Wisconsin series, and compare them with those from Michigan. He magnanimously offers to do this valuable work without compensation for his personal services.

Prof. Irving has indicated in his report, elsewhere, the arrangements which he has made for similar microscopical work upon the Huronian and Laurentian rocks of his collection. In the volume of the final report that has been issued during the year, Mr. Chas. E. Wright describes from microscopical examination some specimens of Archæan rocks from central Wisconsin. He has also studied a large number from the Iron-bearing formations that he has surveyed, and delineations of these will enrich his report on those regions.

It may be appropriate to add that Dr. Weichman, of Germany,

has prepared for Major Brooks a series of elaborate and critical descriptions of the Huronian rocks of the Pine River Iron District, which will form a valuable feature of the report on that region. It is proper to state that this, and a portion of the preceding microscopical work was done in previous years, but as it has not been mentioned specifically in the published reports, it is appropriate to speak of the whole here collectively.

DRAFTING.

The work of this department, which assumes increasing importance in the preparation of the final report, has continued, as heretofore, mainly in the hands of Prof. W. J. L. Nicodemus and Mr. A. D. Conover, of the State University. They have, during the year, completed the drawing of the maps for the atlas accompanying volume II of the final report, and a portion of those for the remaining volumes, and several others are in various degrees of advancement.

PALEONTOLOGICAL WORK.

Prof. R. P. Whitfield has continued his work upon the invertebrate fossils, which constitute the great mass of those which characterize the formations of Wisconsin. He has elaborated many of the preliminary descriptions of new species, preparatory to their final publication, and has prepared drawings of new and characteristic species for engraving. The lithographers have already commenced work upon these. Preliminary descriptions of some of the more important and interesting new species are herewith published.

Dr. J. S. Newberry, the able chief geologist of Ohio, has very kindly investigated the fish remains collected from our Hamilton cement formation, the leading results of which are given in the volume of the final report already published.

ZOOLOGICAL WORK.

The character and *personnel* of this work was indicated in my last annual report, to which reference is here made.

During the year, Dr. Hoy has continued the preparation of his report on the fishes, reptiles and insects of the state, and has added by observation to his already large information respecting these important divisions of our native fauna.

It is believed that his report will embrace all of the reptiles that are denizens of the state, and nearly all of the fishes. It is probable that some small or rare species of fishes in our lakes and northern waters may have eluded observation, but the report may be expected to embrace all the important species. From Dr. Hoy's, numerous and long continued observations and from his interest as fish commissioner in the practical bearings of the subject, the chapter on the fishes will doubtless be a very valuable one. The almost numberless species of insects prevent, at present, even an approximate list of those found in the state, but a valuable contribution on this subject may be expected.

Mr. King has followed the plan heretofore pursued for determining, as definitely as possible, the food of our native birds.

The contents of the digestive organs of 630 specimens, representing 102 species, have been examined during the year. Ten of these species had not previously been studied by him. The food obtained from about 600 of the specimens taken has been preserved in alcohol for further study, with a view of approaching more nearly to a specific determination of the insects that often form a large ingredient of it.

Taken together with the observations in previous years, Mr. King now has notes, made from direct inspection, on 1,642 birds, representing 190 species. This includes essentially all that have any important relation to our agricultural and horticultural interests.

Mr. W. F. Bundy, of Sauk City, who has made a special study of our crustaceans, and has described several new species found in our state, has kindly consented to furnish a list for our reports.

BOTANICAL WORK.

The observations on the timber and other forms of native vegetation, made in connection with the geological examination of the several districts, constitute, perhaps, the most important element of the botanical work of the survey. But, in addition to this, it has been deemed very desirable to place on permanent record as complete a list as possible of the plants indigenous to our state before they disappear through cultivation and pasturage, and the antagonism of imported species. Dr. Lapham had prepared and published, before the inauguration of this survey, a very full list of our phenog-

amous plants and partial lists of some of the lower orders. It is my desire to retain this as a monument of his patience and industry. Since his lists were published, however, some changes in the classification and nomenclature of the species have been adopted by leading botanists, necessitating the revisal of the list. A number of additional species — considerable when reckoned by themselves, but very few compared with the large number listed by Dr. Lapham — had been observed by others, and it was important to catalogue these also. Prof. G. D. Swezey, of Beloit College, has very generously undertaken the task of perfecting the list of phenogams. A preliminary catalogue was prepared by him and published at my personal expense, and distributed to the botanists of the state in the hope that the observations of the season would render it, as nearly as possible, complete. These have not yet been recalled, and the results of the effort are not yet known.

Prof. G. R. Kleeberger, of the Whitewater Normal School, has consented to revise the list of mosses, and Prof. Bundy has in preparation a partial list of the extensive order of fungi.

These gentlemen have generously undertaken this work without expectation of pecuniary reward, and their services are deserving of grateful recognition.

PUBLICATION.

No inconsiderable element of the year's labor has been the completion and publication of volume II of the final report.

The engraving was commenced last year, early in October, and occupied the greater part of a year. The printing and binding consumed about five months and a half. The most careful attention has been given to the execution of every portion of the work, and the amount of time and labor which this has involved can only be appreciated by those who are familiar by experience with similar publications.

The provisions made by the commissioners of public printing for the execution of the work proved highly satisfactory, and much credit is due them for the judicious manner in which they have performed their very important duties in the publication. Like credit is due the printers and lithographers for the excellent manner in which they have done their work. The fact that it has been so well executed in our own state is a just source of pride.

The economy of the publication when its character is considered, is something remarkable. The volume, containing 768 closely printed, royal octavo pages, illustrated by 10 colored, and 27 uncolored lithographic plates, and by 121 wood cuts, cost, as shown by the accounts audited in the office of the secretary of state, \$2.41 per copy. The atlas of 14 large maps in colors, cost \$2.27 per copy. It should be considered that the above includes the cost of procuring stereotype plates, which are now the property of the state, and that the edition was but 2,500 copies, the expense of which is proportionately greater than for a larger edition.

There is at present no specific provision by which parties, not entitled to copies under the specifications of the law, can procure them. A very considerable demand has already been made by such parties, who express a willingness to pay for the publication. As it is manifestly impracticable for the state to extend gratuitous distribution beyond a certain limit, and yet, it is as certainly for its interest to have the work as widely distributed as possible, I would respectfully recommend that the commissioners of public printing be authorized to procure the publication of such additional copies as may be demanded, which shall be placed on sale in a manner analagous to that of the legal publications of the state. As the work is stereotyped and the engraved stones retained, the republication would be inexpensive.

For reasons stated in my last annual report, and in the preface of the book itself, the portion now issued is designated Volume II. The engraving for the maps and illustrations of volumes I and III is already in progress, and the work will be carried forward as fast as its nature will permit. Its execution is entrusted to the same hands, and will be done at the same advantageous rates as in the case of the volume already issued. The terms of the publication of the rest of the report, whether it be more or less in amount, being fixed by contract, the expenses will be determined by what degree of fullness, in the publication of the results of the survey, is desired. In the portion now published, brevity has been assiduously studied, and the data collected have, to a considerable extent, been summarized, rather than presented in full, and, even then, a large mass of details of much local interest has been omitted. A greater degree of brevity could not well be attained, without seriously affecting the thoroughness of the report, and a somewhat greater freedom in

elaboration is desirable. Profuseness of detail in minor descriptions is not, however, considered, by the writer, desirable in reporting, though necessary to thoroughness in investigation, and it is not contemplated in the plan of publication adopted. But, with as great a degree of conciseness as is consistent with a fair presentation of our results, three additional volumes—four in all—will be needed, unless they are made undesirably large, and it is thought that the utmost prudent limit in that direction has already been reached, if not exceeded. The appropriation already made will not be sufficient to complete the two volumes in progress, and an additional provision is needed.

ACCOUNTS.

Full accounts of all expenditures connected with the survey, accompanied by vouchers, may be found on file in the Executive Office. It is believed that they show a highly economical administration of the survey.

ACKNOWLEDGMENTS.

The survey has been greatly indebted during the past year, as heretofore, to numerous citizens, who, by their kind assistance through personal services or valuable information, have greatly aided in its prosecution. To all these, the members of the corps desire to return their warmest thanks.

The survey has been placed under especial obligations to the officers of the Chicago & Northwestern Railway, the Milwaukee & St. Paul Railway, the Wisconsin Central Railway, the West Wisconsin Railway, the Western Union Railway, the Mineral Point Railway, and the Green Bay & Minnesota Railway, who, by very generously granting free transportation to members of the corps, and by other special favors, have facilitated the work and materially reduced its expense.

PRESENT STATE OF THE WORK.

The statute provision that the survey shall be finished by the first of next June, has been accepted in good faith, and the work has been directed with that fact in view, and the energies of the corps have been faithfully devoted to an effort to place the survey in the best practicable condition for closing on that date. The work will

not be, and in view of the extent of the field, its wildness, and its inherent difficulties, could not be exhaustive, with the facilities at our command. Much more valuable work can still be done, especially in the north, and the mining regions. But, recognizing the generosity and confidence of the last legislature in granting, in advance of any published results, an additional year, and, having now presented in published form a typical portion of their investigations, the corps will cheerfully accept the limit imposed upon them, or will execute with equal cheerfulness any additional directions which the legislature may give.

It will be manifestly impossible to complete the publication by next June; indeed, it will require diligent application to elaborate the material collected, by that date, and several months' labor must follow in publication, but this the corps will not hesitate to do without regard to the question of compensation, if the necessary authority is granted them.

PRELIMINARY DESCRIPTIONS OF NEW SPECIES OF FOSSILS FROM THE LOWER GEOLOGICAL FORMATIONS OF WISCONSIN.

BY R. P. WHITFIELD.

POTSDAM SANDSTONE SPECIES.

Palæophycus plumosum, n. sp.

Species consisting of slender and elongated, slightly flattened or cylindrical stems of about a twelfth of an inch in diameter, and somewhat flexuous, dividing and subdividing at the upper extremity into several branches, forming feather-like tufts, the divisions of which almost immediately attain the same dimensions as the parent stem, and are from half an inch to an inch and a half in length. Surface, apparently roughened by indistinct longitudinal corrugations.

The remains, at first sight, somewhat resemble those described in vol. 1, Pal. Foss., Canada, under the generic name *Lycrophycus*,

but when more closely examined, are seen to have an entirely different mode of bifurcation, the divisions being of the size of the parent stem and taking place apparently one at a time, although very near each other, instead of the parent stem breaking up, at once, into a great number of smaller branches.

Formation and locality. In thin, greenish sandstone layers of the Potsdam Period, below Mendota, Wisconsin.

Triplexia primordialis, n. sp.

Shell small, measuring less than half an inch in width; transversely oral in outline, and quite ventricose in profile; hinge-line straight and about half as long as the width of the shell below; area narrow. Ventral valve with a strongly depressed, rather narrow and rounded mesial sinus. Dorsal valve, with a narrow, sharply elevated fold not extending quite to the beak; sides of the valve rounded. Surface smooth in the casts, but presenting the appearance of having been externally striate. Processes in the interior of the dorsal valve, apparently forming a small spoon-shaped pit at the beak.

Formation and locality. In the Potsdam sandstone at Roche-à-Cris bluff, Adams county, Wisconsin.

Palæacmæa Irvingi, n. sp.

Shell rather large, patelliform, about half as high as wide, and the length slightly exceeding the width, giving a broadly oval or ovate outline to the margin; apical half of the shell rather more abruptly conical than the basal portion, the apex situated slightly in advance of the middle of the length and laterally compressed; body of the shell marked by strong, concentric or encircling undulating wrinkles or folds, and also by lines of growth.

The species differs from *P. typica* H. & W., from the Potsdam sandstone of New York, in its greater size, more circular form, compressed apex and stronger undulations. The species appears to have been not uncommon, but as it occurs in a hard quartzitic sandstone it is not readily obtained in good condition, but appears mostly in the form of rings or parts of rings on the surface of the rocks, and is consequently not easily recognized.

Formation and locality. In the quartzite layers of the Potsdam group, in Jackson county, Wisconsin.

Bellerophon antiquatus, n. sp.

Shell small, generally measuring not more than five-sixteenths of an inch in its transverse diameter; globose in form, involutely and closely coiled, leaving but a very narrow aperture, the preceding volution projecting into, and occupying the greater part of its area; auriculations rounded, not projecting beyond the general rotundity of the shell; axis probably imperforate in the perfect condition, but in the cast, in which state they all appear so far as yet observed, it is seen to be minutely perforate, from the removal of the solid axis. Margin of the aperture characterized by a broad, shallow sinus, angular at the center. No appearance of any reflexion or thickening of the margin can be detected. Surface markings not satisfactorily determined; there are, however, on the best preserved individual, faint indications of regular transverse lines parallel to the margin of the aperture, but owing to the friable nature of the sandstone cannot be positively determined.

So far as we know, there has been no species of this type of the genus recognized in rocks of this horizon before, and none with which it need be confounded.

Formation and locality. In soft friable sandstone of the Potsdam group, at Osceola Mills, Wisconsin, associated with other species of the same age.

Conocephalites calymenoides, n. sp.

Species less than medium size, the largest head noticed measuring scarcely three-eighths of an inch in length. The glabella and fixed cheeks, the only parts of the carapace positively identified, present much the general appearance of a species of *calymene*. Glabella proportionally small, not exceeding half the entire length of the head, conical in form and obtusely pointed above, the width across the base rather more than equaling half the length, separated from the fixed cheeks by deep, abrupt dorsal furrows; surface convex, prominent and destitute of glabellar furrows; frontal limb nearly twice as wide between the suture lines as the greatest width of the glabella, its surface elevated into a highly convex, transversely oval boss or tubercle, which is separated from the glabella by a wide, deep furrow; fixed cheeks highly and abruptly elevated and of proportionally large size; palpebral lobes semilunate or

crescentiform, and situated opposite the upper end of the glabella; occipital furrow narrow, but deeply depressed; ring narrow, rounded and prominent. Facial suture nearly straight, in front of the eye lobes to the middle of the tuberosity of the frontal limb, around the front of which it seems to curve; behind the eye it is directed outward for nearly half the width of the lateral limb, where it changes abruptly, forming an obtuse angle, and is then directed outward and backward with a slightly convex curvature to the posterior margin of the head at a point distant from the dorsal furrow about equal to the length of the glabella and occipital ring, forming large, triangular lateral limbs.

The tuberosity of the frontal limb, the large elevated fixed cheeks, deep dorsal furrows and small size are prominent features, and will serve to distinguish it from any known species.

Thorax long and narrow, the length exceeding once and a half the greatest width; regularly and gradually narrowing from the occiput posteriorly, very highly arched transversely and strongly trilobed, consisting of twenty-two or more articulations. Axial lobe forming rather more than one-third of the entire width of the thorax, highly elevated, the curvature quite equaling a semicircle; lateral lobes narrower and deeper than the axial, the sides nearly vertical; dorsal furrows strongly marked; segments very short, the axial portion strongly rounded from front to back; pleura less strongly rounded than the axial portion, the anterior element forming nearly one-half the width at the inner end but decreasing outward, the furrow separating the two portions, deep and extending more than half the length of the pleura, outer portion flattened on the articular surface and rounded on the posterior margin; extremity rounded. Pygidium unknown.

Formation and locality. In sandstone of the Potsdam formation (upper part), associated with *Agraulos Woosteri*, at Eau Claire, Wisconsin.

Crepicephalus onustus, n. sp.

Glabella of moderate size, highly convex, broadly conical and narrowly rounded at the summit, the width at the base equaling the height exclusive of the occipital ring, short, less prominent than the glabella and somewhat narrower; fixed cheeks narrow, rounded and prominent; palpebral lobes small and inconspicuous,

situated opposite the middle of the glabella; frontal limb moderately long and regularly rounded on the margin between the facial sutures, the front margin prominent and rounded, the space between it and the glabella deeply and regularly concave and strongly arcuate laterally; ocular ridges faintly marked; dorsal furrows narrow, very deep and sharply marked; facial suture directed gently outward in its course from the eye-lobes to the anterior margin of the head, but recurving near the edge and slightly rounding the antero-lateral angles of the frontal limb; behind the eye it is directed outward at an angle of about forty-five degrees, with a slight sigmoidal curvature to the posterior margin of the head, forming a short triangular lateral limb; posterior furrows narrow and directed slightly forward in their passage from the dorsal furrows to the suture. Other parts of the organism unknown. Length of the head half an inch; length of glabella from the occipital furrow, nine-sixteenths of an inch.

Formation and locality. In rather compact yellow sandstone of the Potsdam period, at Ettrick, Wisconsin.

Ptychaspis granulosa.

Dicelloccephalus granulatus. Owen: U. S. Geol. Surv., Wisconsin, Iowa and Minnesota, p. 575, pl. 1, f. 7.

Not Ptychaspis granulosa. Hall: 16th Rept. State Cab. N. Y., p. 173, pl. vi., f. 38-40.

Glabella elongated, cylindrical or very slightly narrowing anteriorly, highly convex and divided transversely by three pairs of furrows, the two posterior ones being strongly marked and uniting in the middle, and directed forward at the outer extremities; the anterior pair being very short and faintly marked. Anterior extremity of the glabella rounded; dorsal furrows deep and well marked. Fixed cheeks, broad at the eye and widening behind, but in front of the eye are narrowed and rounded to the anterior margin of the head. Eye-lobes small and situated opposite the extremity of the middle glabellar furrow. In front of the eye-lobes and glabella, the fixed cheeks and frontal limb are strongly curved downward to the anterior margin, the frontal limb being of medium width but appearing narrow from foreshortening, as seen in a vertical view.

Surface of the fixed cheeks and glabella covered with coarse, ele-

vated and transversely elongated pustules or granules, of proportionally large size, arranged in indistinct rows on the fixed cheeks, while on the glabella they are less regular and not so prominent.

This species is peculiar, among the Wisconsin forms, for its pustulose surface. The specimens in hand are all fragmentary, that figured being among the most perfect, but lacking the occipital ring and back portion of the fixed cheeks. The movable cheeks associated with the glabellas are also quite imperfect, but show the pustulose characters very distinctly, and corresponding very well with those described and figured by Dr. Owen as above cited; but differing very materially from those identified with that species, by Prof. Hall, in having the surface strongly pustulose instead of lined or striated. We, therefore, purpose to recognize that species under the name *Ptychaspis striata*, from its striated surface features.

Ptychaspis striata, n. sp.

Ptychaspis granulosa. Hall: 16th Rept. State Cab. N. Y., p. 173, pl. vi., fig. 33-40.

Not *Dicelloccephalus granulatus.* Owen.

Differs from *Ptychaspis granulosa*, Owen sp., in having the surface of the head strongly striated or marked with elevated ridges, which are more or less parallel to the margin.

Ptychaspis minuta, n. sp.

A minute species known only from detached portions of the head; the length of which, as seen on the largest individuals observed, scarcely exceeds one-sixth of an inch, and mostly not more than an eighth of an inch from the anterior margin to the back of the occipital ring.

Glabella cylindrical, rounded and projecting in front, divided transversely by two pairs of deeply marked, oblique glabellar furrows, neither of which extend entirely across, and by a very faint third pair situated near the anterior end; occipital furrows, also deep, the ring narrow and elevated. Fixed cheeks convex, more than half the width of the glabella at the palpebral lobe, widening behind and narrowing in front. Frontal limb narrow and abruptly curved downward in front of the glabella, so as to be scarcely seen

in a vertical view; dorsal furrow deeply marked. Eye lobes proportionally long but very narrow and but slightly elevated.

Movable cheeks elongated-triangular, convex on the surface, extended backwards at the genal angles into short obtuse spines; ocular rims of moderate size. Surface coarsely striated near the margin parallel to the border. Thorax and pygidium unknown.

The small size of the species, with its deeply lobed glabella and abruptly declining frontal limb, when taken with its characteristic form, will readily distinguish the species.

Formation and locality. In soft, very friable, greenish-brown sandstone of the Potsdam formation, at Roberts' Store, St. Croix county, Wisconsin.

Agraulos (Bathyurus?) Woosteri, n. sp.

Head and movable cheeks, when united, semi-circular or short-paraboloid in form, rather strong convex and bordered by a narrow, rounded and elevated rim, which is wider in front than on the sides, genal angles obtusely-rounded and destitute of spine. Glabella round-conical in outline, prominent and convex, two-thirds as wide at the base as the length, including the occipital ring, the surface smooth and destitute of transverse furrows. Dorsal furrows faintly marked, occipital furrow not strongly marked. Fixed cheeks less than half as wide at the eye as the middle of the glabella; frontal limb, from the glabella to the anterior margin of the head, half as long as the glabella and occipital ring, and rapidly sloping from the glabella to the marginal rim. Eyes prominent, proportionally large, reniform and the visual surface strongly convex. Facial suture strongly diverging from the eyes to the anterior marginal rim, through which it passes with a strong inward curvature to the front, the width of the frontal limb being equal to the entire length of the head. Behind the eye the suture passes backward and outward to the posterior margin, at an angle of not more than fifteen to twenty degrees, with the vertical axis of the head.

Thoracic segments not fully determined but those associated on the same sandstone with the glabellas, cheeks, and pygidia are narrow in an antero-posterior direction, and have long, slender and pointed pleura.

Pygidium paraboloid on the outer margin, the anterior margin forming from three to four times as flat a curve as the posterior mar-

gin. Axis highly convex, two-thirds as long as the shield, and not more than one-fourth as wide at its greatest width, marked by four transverse rings, exclusive of the terminal ones; lateral lobes convex, destitute of any thickened border, marked by three furrows on each side, exclusive of the anterior one; ribs simple, and nearly reaching to the border. Marginal selvage of the under surface wide and much thickened.

I know of no species sufficiently resembling this one to be readily confounded with it.

Formation and locality. In yellow sandstone of the Potsdam period (upper part), at Ettrick and Eau Claire, Wisconsin.

Arionellus (Agrauios) convexus, n. sp.

Glabella and fixed cheeks united, strongly convex and somewhat paraboloid in form, length and width nearly equal; anterior margin of the head between the suture lines regularly and somewhat sharply arcuate; palpebral lobes small, not very prominent, situated posterior to the middle of the head. Glabella rather less than two-thirds of the entire length of the shield, rounded conical in form and somewhat abruptly tapering; scarcely defined at the margins by the dorsal furrows, and apparently very indistinctly marked by three pairs of oblique furrows; occipital ring narrower than the base of the glabella, and more prominent, and also extending beyond the posterior limits of the fixed cheeks; occipital furrow very shallow and faintly marked, the ring short in the middle and reduced to its minimum width at its junction with the dorsal furrows. Fixed cheeks, half as wide as the glabella; frontal limb as long in the middle as the width of the fixed cheek, and slightly increasing toward the lateral angles. Facial suture passing nearly direct from the eye to the anterior margin of the head, its direction posterior to the eye not determined.

The largest example of the glabella and fixed cheeks observed, measures about three-fourths of an inch in length by nearly seven-eighths of an inch in width at the base. No other parts of the organism have been observed.

Formation and locality. In brown sandstone of the Potsdam formation, at Ironton, Sauk county, Wisconsin.

Elliptocephalus curtus, n. sp.

This species is known only by several detached portions of the cephalic shield, which occur in sandstone associated with *orthis pepina*, *Ptychaspis miniscaensis* and fragments of other trilobites crowded together, rendering it impossible to satisfactorily determine portions of other parts of the organism. The fragments observed consist of the glabella and fixed cheeks, which, united, are sub-semicircular in form; the glabella is but slightly elevated, once and a half as long as wide, measuring from the back of the occipital ring, and somewhat quadrangular in shape; the front being almost regularly rounded, the sides parallel and the width less across the middle than in front. A very slight angularity exists along the middle, and a single furrow crosses it near the base, distinct in the middle, but becoming obsolete before reaching the sides.* Frontal limb very short in the middle, gradually and rapidly widening laterally. Fixed-cheeks wide, but little less at the palpebral lobes than the width of the glabella, but rapidly contracting behind to about two-thirds of that width; their general surface flattened or somewhat depressed between the eye and the glabella. Occipital ring narrow; posterior cheek furrow very narrow. Dorsal furrow not impressed below the general level of the fixed-cheek. Facial suture curved inward in front of the eye to the anterior border, and behind, directed inward nearly at right angles to the axis, to a distance equal to one-third the width of the cheek, and then abruptly deflected to the posterior border of the head. Palpebral lobes proportionally large, simple in structure, elevated on the margin and semi-lunate in form, situated very near to the posterior margin of the head.

Formation and locality. — In friable brown sandstone of the Potsdam period.

SPECIES FROM THE LOWER MAGNESIAN LIMESTONE.

The following group of species is of peculiar interest, as coming from a bed of Lower Magnesian limestone occurring within the

* It is possible this may be the occipital furrow, as the ring is imperfect in all the specimens, but this being placed in advance of the furrow of the fixed cheek, has been considered as a glabellar furrow.

area occupied by the Huronian quartzites of the Devils Lake region, at a quarry owned by Mr. Eiky, several miles east of Baraboo.

The bed in which they occur is underlaid by a sandstone of the Potsdam period containing an abundance of *Scolithus* borings, apparently of the same age, and probably of nearly the same horizon as the sandstone a few miles distant, nearer the lake, from which the fossils described by Prof. A. Winchell in the *Am. Jour. Sci. and Arts*, March, 1864, were obtained. The outcrop rests within the curve of a quartzite hill, near the eastern end of the range, and at a level considerably below that of the top of the quartzites; while, at a short distance to the northeast, there is an outcrop of sandstone at a considerably higher level than these magnesian beds.

The fossils are all new, except the *Leptaena*, of which there was but one specimen obtained, and are of peculiar types. Some of the trilobites are similar to those described by Mr. Billings, *Pal. Foss. Can.* Vol. 1, p. 409, under the generic name *Bathyurus*, but are of different species, and are, we think, clearly referable to the genus *Dicelloccephalus*, rather than to *Bathyurus*, as exemplified by the type of the genus *B. extans*, Hall sp. The occurrence of a species of the genus *Illænurus* shows the intimate relations which existed between the fauna of this and of the preceding Potsdam period of the neighboring counties.

The existence of several species of *Metoptoma* of peculiar character, and also of the new and remarkable genus *Scævogyra*, adds a very marked feature, and gives a peculiar interest to the fauna of this very limited deposit. The rather remarkable fact that all the spiral shells found at this locality are sinistrally coiled, and that two, at least, of the capuloid forms show a tendency toward a backward curving at the apex, gives a peculiar interest to the entire fauna, and makes it particularly desirable that these beds should be more thoroughly explored.

Beyond the species here described, a single specimen of a rather peculiar species of *Stromatopora* was found loose, near the top of the quarry; but showing marks of abrasion to such an extent as to suggest that it might have been derived from some other locality; although the lithological features would indicate it as belonging here. Still, with this uncertainty, we have not considered it safe to refer it to this horizon, although of an undescribed species.

Leptaena Barabuensis.

Orthis Barabuensis. Winchell: Am. Jour. Sci. and Arts, Vol. 37, 1864, p. 228.
Extract p. 4.

A single specimen of a ventral valve only was obtained. The shell is half as wide again as high, with a narrow, linear, nearly straight hinge-line and area, not quite as long as the shell below in the specimen used; the extremities being rounded and forming with the front line nearly two-thirds of an oval figure. Surface of the valve convex, with a distinct median sulcus, somewhat angular in the bottom, and passing from beak to base. The surface also gives indications of having been marked by faint radiating striæ.

The specimen under consideration differs from those obtained from the sandstones below, in being less angular in the sinus, and less extended along the hinge-line; but these differences are not sufficiently marked to be considered of specific importance when seen on only a single individual valve. The species was originally described as an *Orthis*, but is, we think, clearly referable to *Leptaena*, and we have, therefore, thus placed it.

Metoptoma Barabuensis, n. sp.

Shell rather large, ovate in general outline on the margin; apex highly elevated, pointed, and directed forward even beyond the limits of the anterior margin of the aperture, attenuated in the upper part, and on one specimen, having the appearance of being slightly recurved at the tip; elevation of the apex equal to, or greater than half the length of the shell measured along the base. Anterior slope vertical, slightly concave or somewhat overhanging, sometimes with a slight angularity along the median line from the apex to the margin; lateral slopes slightly convex; posterior slope most strongly rounded. Surface of the shell marked by concentric lines of growth, and on the posterior and lateral slopes, very faint indications of fine radiating lines are observable.

This species is most nearly related to *M. Nyctcis* (Bill. Pal. Foss. Canada, Vol. 1, p. 37, Fig. 39), than to any other described species, but differs materially in the more erect form and greater elevation of the apex.

Metoptoma recurva, n. sp.

Shell rather large, ovate in general outline, apex highly elevated with a strongly backward curvature throughout its length; anterior slope very abrupt and slightly convex; subangular along the median line from beak to base; posterior slope broadly concave, and the lateral slopes nearly direct; apical portion of the shell unknown, the specimen being imperfect in this part. In the earlier stages of growth the shell has been very moderately expanding at the margin but increased rapidly in height; afterwards becoming more rapidly expending, especially around the posterior margin, giving a long concave posterior slope, broadly curved and almost flattened near the posterior margin, while the anterior portion retains its vertical character. Surface marked by concentric lines of growth, strongest where crossing the angularity of the anterior end; also by faint evidence of obscure radiating lines.

This species differs from all others described, and is peculiar for the strong recurving apical portion, the convex anterior slope and broadly concave posterior slope.

Metoptoma similis, n. sp.

Shell of medium size or smaller, elongate-oval or slightly elliptical in outline, two-thirds as wide as long, depressed-convex on the top, the umbro slightly elevated and the beak depressed almost to the level of the anterior basal margin; greatest convexity at the anterior third of the length and not exceeding one-half the width of the shell. Anterior end very short, angular along the median line, and the slope concave; apex and anterior half of the dorsal slope angular or subcarinate in the middle, becoming more regularly rounded posteriorly, antero-lateral slopes slightly concave. Surface unknown.

Scævogyra, new gen.

Thin univalve shells, sinistrally coiled, with a more or less elevated spire, composed of rounded volutions, and characterized on the lower side by a broad, open umbilicus, entirely destitute of callus; peristome entire, uniting with the preceding volution on the inner side, and more or less spreading or trumpet-shaped externally. Types *S. Swezeyi* and *S. elevata*.

The marked peculiarity of the shells for which the above genus is proposed, consists in their sinistral character and open umbilicus. We had at first supposed the former species could be classed under the genus *Maclurea*; but the rounded *naticoid* character of the spire was an objection, and when, on developing the second species from the matrix, the greater elevation of the spire was observed, it was seen at once to indicate an entirely distinct genus. The genus differs from *Maclurea* in the elevation of the spire, rounded volutions and expanded aperture. The appearance is that of a *naticoid* shell of the type of *Gyrodes*, Conrad. They also resemble some forms of *Platyostoma*, Conrad, except in the wide umbilicus and sinistral curvature. We are inclined to think from the character of the shells that they may have been *Heteropodous* rather than *Gasteropodous*.

Scævogyra Suezeyi, n. sp.

Shell of moderate size, depressed convex on the upper side, the spire rather low and composed of about three rounded, rapidly enlarging, sinistrally coiled volutions, the last one more rapidly expanding and becoming distinctly trumped-shaped at the margin of the aperture on the upper side; suture line distinct in the casts; umbilicus wide and open, subangular at the margin, and the depression abrupt. Aperture oblique, strongly receding below; section of the volution obovate, widest above and angular below, somewhat modified at the inner upper portion by the preceding volution. Surface marked by distinct lines of growth, and in some cases by slight undulations of the shell parallel to the margin of the aperture.

The shell is peculiar for its distinctly naticoid appearance in all respects except the sinistral curvature of the spire.

Scævogyra elevata, n. sp.

Shell of medium size, the largest specimen observed measures a little more than an inch in height, spire proportionally elevated, the apical angle being about thirty-eight to forty degrees. Volutions sinistral, about three in number, moderately increasing in size and strongly rounded on the surface; suture line distinct; umbilicus only moderately wide, less than half the diameter of the volution. Aperture semilunate in form, straightened on the inner side and slightly modified above by the preceding volution; outer

lip slightly expanded at the margin on the outer portion. Surface of the shell, so far as can be observed in the matrix, destitute of markings.

The great elevation of the spire of this species and the smaller umbilicus are distinguishing features.

Scævogyra obliqua, n. sp.

Shell, sinistral, very oblique; consisting of about two volutions, the outer one forming nearly the entire bulk of the shell, rapidly descending in its curvature and somewhat compressed on the outer surface. Section of the volution elongate-ovate, somewhat constricted on the inner side and very slightly modified, at the upper inner angle, by the preceding volution. Aperture very much elongated, somewhat rounded below; umbilicus small; suture line indistinct. Surface of the shell unknown.

The species is readily distinguished from the others by the proportionally large body volution, the upper one being only apical. A single specimen only, was obtained, having been discovered and presented by Mr. Miller, of the class of "77," Beloit College.

GENUS DICELLOCEPHALUS — OWEN.

The two following species of *Dicellocephalus* are of great interest from the fact that they preserve the true form and convexity of the carapace, showing them to be quite convex and rotund. Nearly all the species of this group of Trilobites hitherto described have been obtained either from soft, compressible sandstone, from sandy shales, or from shaly rocks, where the objects have been subjected to much distortion or change in form by vertical compression, flattening or spreading out the crust so as to present broad, flattened objects of but slight convexity; but in the present case the matrix is a hard and very unyielding magnesian limestone, which has preserved them in their true proportions, although, as in nearly all other cases with species of this genus, they are preserved only as detached fragments, or parts.

Dicellocephalus Barabuensis, n. sp.

Entire form of body unknown, the species being recognized by the glabella and fixed cheeks, united by detached, movable cheeks

and isolated pygidia. The species has attained to a medium size, the heads sometimes measuring one inch or more in length from the anterior border to the base of the occipital ring. Glabella strongly arcuate, longitudinally, and somewhat less so transversely, separated from the fixed cheeks by well marked dorsal furrows, which are continued in front; sides of the glabella, very gradually converging anteriorly; anterior end, rounded surface marked by two pairs of very faint furrows, the anterior pair often obsolete, and the posterior seldom extending to more than one-third of the distance from the dorsal furrow, recurved at the inner end; occipital furrow broad and distinct, but not deep; occipital ring large and strong, widening in the middle posteriorly. Fixed cheeks, very narrow; palpebral lobes, small, obtusely angular in the middle, moderately prominent, and situated opposite the middle of the length of the glabella. Frontal limb wide and short, bordered by a distinctly elevated, flattened, narrow anterior rim; posterior lateral limbs, narrow longitudinally, but as long laterally as the width across the middle of the glabella, deeply and broadly furrowed sutures cutting the anterior border nearly on a line with the outside of the eye lobe, which they reach with a slightly outward curvature, and behind are directed strongly outward at a low angle with the line of the base of the head.

Movable cheeks, proportionally large, depressed convex, on the surface, and nearly semicircular in outline, margined by a moderately wide, thickened, slightly elevated rim, which is prolonged in an acute spur on the anterior extremity, and incurved at the genal angles, not prolonged in the form of spines.

Pygidium, referred to the species, subelliptical in outline, the marginal curve forming nearly one-third of a circle, while the anterior border is much less strongly arched; length and breadth as three to five, and the lateral angles slightly rounded; axis strong, forming fully one-third of the entire width, strongly elevated, and a little less than two-thirds of the entire length of the plate, marked by three rings, exclusive of the anterior one. Lateral lobes convex, destitute of a thickened border, and marked by three very obscure ribs on each side, not observable on all the specimens.

The species somewhat closely resembles *Bathyurus capax* (Bill. Pal. Foss., Canada, Vol. 1, p. 409, fig. 389), but is more convex, has narrower fixed cheeks and more distinct glabellar furrows that one being described as destitute of them.

Dicellosephalus Eatonii, n. sp.

Entire form unknown. Glabella and fixed cheeks, when united, quadrangular in form, and very convex as seen uncompressed in the limestone; entire length of the head equalling the breadth across the palpebral lobes. Glabella, quadrangular, widest at the base, gently narrowing to the front, slightly rounded at the antero-lateral angles, and squarely truncate on the anterior border, where it is rather more than two-thirds as wide as at the occipital furrow; separated from the fixed cheeks by shallow dorsal furrows, as well as by its greater convexity. Surface of the glabella marked by a broad and very shallow, but poorly defined posterior furrow, which is strongly directed backward in the outer portions, but nearly straight in the middle; and on a single example, by a very faint pair just in front of the eye lobe. Fixed cheeks narrow, not at all prominent. Eye lobes moderately large, prominent on the anterior end and much less so posteriorly. Frontal border, wide, measuring on the most perfect specimen, about three-eighths of an inch between the front of the glabella and the anterior margin, strongly striated transversely with coarse, distant striæ. Suture line, as shown by the outline of the fixed cheeks, directed slightly outward in front of the eye, and rounding inward in crossing the anterior border; posterior to the eye its course has not been determined. Posterior lateral limb unknown, but from the position of the eye, has evidently been narrow, and, from the form of the movable cheek, quite extended laterally.

Movable cheeks large, strong, subtriangular in outline strongly convex, with a large ocular sinus, and a wide, thickened, and strongly striate marginal border, which gradually narrows posteriorly to the genal angle. The anterior margin is prolonged in a spine-like projection, corresponding to the rounding of the antero-lateral angle of the frontal limb.

A large, semicircular or elliptical caudal plate, which may be the pygidium of this species, was discovered among the specimens obtained at the quarry, after reaching home. The length is less than half the width, the surface regularly convex, with a short and proportionally small axial lobe, about half as long as the shield, and with indications of faint rings.

The posterior margin is regularly and symmetrically rounded

throughout, and the curvature considerably shorter than that of the anterior margin. It is possible this may be the caudal shield of the above species, although from the character of the head and its great resemblance to *D. Minnesotensis*, Owen, we had expected a somewhat different shaped plate.

Illænurus convexus, n. sp.

Glabella and fixed cheeks, as seen united, round conical in outline, half as wide again at the base as in front of the eyes. Surface almost regularly and equally convex, and destitute of either dorsal glabellar, or occipital furrows, except the former, which are represented very faintly near the posterior margin by slight indentations, and by the construction of the posterior margin of the head. Posterior margin of the glabella strongly rounded backward beyond the line of the lateral limbs; ocular lobes inconspicuous, and situated near the middle of the length of the head; lateral limbs short triangular; anterior border of the frontal limb rounded between the suture lines, as if the movable cheeks had united in front. Facial suture very simple, being rounded inward in front of the eye, and behind is directed backward and slightly outward, with a gently sigmoid curvature, to the occipital border, at a distance from the dorsal furrow equal to one-fourth the width of the glabella.

Movable cheeks not definitely determined. There is, however, a single example of a cheek in the collection which may possibly belong to this species, although the thickened rounded border would seem to be an objection to this view. The suture line of the specimen, as shown on its border, corresponds nearly to that of the above described head, when held in a corresponding position. The specimen is rather strongly convex with a thickened rounded margin of moderate width, the anterior prolongation of which has been broken, while the posterior angle is prolonged into a short curving spine having a downward direction.

Pygidium, elliptical, twice as wide as long, strongly convex on the surface, pointed at the lateral angles and less arched on the anterior than on the posterior margin, with slight constrictions at the place of the dorsal furrows.

Euomphalus Strongi, n. sp.

Shell somewhat larger than medium size, subdiscoidal, and coiled

nearly in the same plane, the depression of the spire being nearly as great as the depth of the umbilical opening. Volutions, three or more, rapidly increasing in size and very slightly overlapping each other on the upper surface, strongly convex on the sides, becoming obtusely subangular just within the middle of their width and sloping rapidly in each direction from this point; dorsum rather more decidedly subangular than the sides, giving a somewhat subquad-rangular form to the volution when seen in a transverse section. Surface of the shell indistinctly marked by broad faint undulations, parallel to the margin of the aperture, and having a strong backward curvature from the ventral to the dorsal angles, indicating a deep angular notch-like feature of the margin.

This is a very neat and pretty species, presenting in its almost symmetrically coiled volutions, much the character of a large species of *Cyrtolites*, but on close examination it is seen to be spirally coiled, although but very slightly off the plane of the volutions. The diameter of the largest individual is nearly two and one-fourth inches, with a transverse diameter of the volution at the aperture of about three-fourths of an inch.

Formation and locality. In cherty layers of the Lower Magnesian limestone, Highland county, Wisconsin. Named in honor of the discoverer, Moses Strong, Esq.

SPECIES FROM THE TRENTON GROUP.

Trematopora annulifer, n. sp.

Bryozoum forming slender, solid branches, with a diameter in the larger specimens of nearly a line, and marked by distant bifurcations. Branches characterized by numerous encircling annulations which are arranged at about a sixteenth of an inch from each other, and are angular on the crest with concave interspaces. Cell-pores very minute, elongate polygonal in form, two-thirds as wide as long, and separated by intercellular spaces somewhat narrower than the cells, and deeply grooved along the middle, leaving an elevated margin bordering the cell aperture, which is elevated at the base to form a short triangular node or spine.

The species is peculiar in its regular encircling annulations placed at about the same distance from each other on specimens of all diameters. The cell-pores vary considerable in size and form in dif-

ferent individuals, sometimes occurring nearly circular. The spine at the base of the cell aperture is not always developed, although generally present. The fragments seen vary from one-fourth to nearly one inch in length and are seldom seen to bifurcate, although several have been noticed showing this feature.

Formation and locality. In shales of the Hudson river formation at Delafield, Wisconsin.

Trematopora granulata, n. sp.

Bryozoum growing in strong, solid bifurcating branches, which are marked with low, rounded distant nodes, and the entire surface densely covered with small, rounded, elliptical, or quadrangular cells, the apertures of which are slightly excavated and divided by proportionally thick partition walls. Surface of the partition walls thickly set with small, rounded granules, sometimes arranged in a single and sometimes in a double series, from nine to twelve granules may be counted around a single cell where they form only a single series, but where a double series exists they often alternate, so that the nodes are more distant. Cells, where counted in a direct series, numbering from twelve to fourteen in the space of an eighth of an inch.

The growth of the cells is generally from the centre outward, forming solid branches, with the cell opening at right angles to the axis; instances occur, however, where the upper end of a branch is hollow, the cells forming only a thin crust or tube, this, however, is not the usual mode of growth, but, apparently, the result of accident. In some of the cells, thin, distant diaphragms can be seen. Intercellular substance, apparently solid.

There is no species described from rocks of this age, which sufficiently resembles this one to require comparison.

Formation and locality. In shales of the age of the Hudson river formation, at Delafield, Wisconsin.

Fenestella granulosa, n. sp.

Bryozoum, growing in small fan-shaped or funnel-formed fronds, which rise from a root-like base, by which they have been attached to foreign substances. Longitudinal rays slender, rather closely arranged, and frequently bifurcated; giving to the lower part of the frond a somewhat irregular mode of growth, but becoming more

regular above. From three to four of the rays may be counted in the space of one millimeter, in the upper part, but seldom more than three in the lower. Fenestrules subquadrangular, longer than wide, but extremely variable in size and form, and about as wide as the diameter of the rays. Pores small, slightly oval, scarcely exsert, generally four to each fenestrule, one of which is situated at the junction of the transverse dissepiment; rays carinate between the pores; dissepiments narrower than the rays. Non-poriferous surface of the rays convex, distinctly but very minutely granulose, the granules closely and irregularly arranged, sometimes numbering as many as six in the width of the ray opposite the fenestrule.

Formation and locality In shales of the Hudson river group, at Delafield, Wisconsin.

Fistulipora solidissima, n. sp.

Bryozoum, forming strong, cylindrical, ramifying branches, which often attain a diameter of nearly one-fourth of an inch. General surface destitute of tubercles or tuberculiform elevations, but densely covered with minute, elongate-oval, or sometimes rounded cell-pores, which are separated by intercellular spaces as wide or wider than the transverse diameter of the pores. Intercellular spaces marked, usually, by a single series of very minute, slightly elongated, polygonal pits, which vary in size according to their positions; being largest in the angles formed by three adjacent cells, and smallest on the sides between two nearly opposite cells. Occasionally there are two irregular lines of pits on the intercellular spaces, but this feature is not a common one. Twelve to sixteen cell-pores may be counted in the space of an eighth of an inch, measured along the branch, and from three to five of the intercellular pits occur in the length of a cell.

Formation and locality. In shales of the Hudson river formation, at Delafield, Wisconsin.

Fistulipora lens, n. sp.

Corallum, growing in small, discoid or plano-convex button-shaped bodies, which appear to have commenced their growth on a fragment of shell or other substance, and afterward become free; discs varying in size from one-fourth, or less, to nearly three-fourths of an inch in diameter. Under surface more or less concave, not

usually possessing an epitheca, but presenting a fine, radiately striate surface, from the exposure of the cell tubes. Cells radiating from an imaginary center, and forming on the upper surface of the disc extremely minute, rounded or polygonal apertures, with often a thin sharp partition wall, but more frequently the wall has a thickness of nearly half the diameter of the cell, with one large intercellular pit, occupying the space between the adjacent cells, and other smaller ones between the cells, wherever the walls are thick enough to permit them. The walls near the angles between the cells, bear small elevated points or nodes, in many or most cases, as seen when looked at obliquely, under a strong lens. Four of the cells occupy the space of one millimeter.

Formation and locality. In the shales of the Hudson river group, at Delafield, Wisconsin.

Chaetetes fusiformis, n. sp.

Corallum, forming small, solid, irregularly fusiform or sub-cylindrical bodies, which are generally slightly curved, and vary from one-fourth of an inch to one inch in length, and attain a diameter of nearly an eighth of an inch at the thickest part of the larger individuals; extremities usually pointed, generally acute when perfect. Surface covered by very minute, round or slightly oval cell-pores, which are separated by intercellular spaces of from less than one-third to nearly or quite two-thirds of their own diameter, and marked by a few scattered intercellular pits, or a depressed groove, or oftentimes is elevated along the middle, becoming ridge-like, leaving the cell-apertures spreading or excavated.

Formation and locality. In shales of the Hudson river formation, at Iron Ridge, Wisconsin.

Monticulipora rectangularis, n. sp.

Corallum compound and ramose, the stems cylindrical and solid, with distinct bifurcations and often attaining a diameter of three-eighths of an inch. Surface thickly covered with closely set, moderately elevated, rounded tubercles. Cell-tubes of moderate size, from ten to fourteen occupying the space of an eighth of an inch; generally quadrangular in form, though commonly polygonal; usually arranged in concentrically curved rows, diverging from the center of a tubercle or forming segments of circles around them ;

on the upper side. Cell walls very thin and sharp, not elevated to form spines at the angles.

Formation and locality. In shales of the Hudson River group, at Delafield, Wisconsin.

Monticulipora punctata, n. sp.

Corallum forming comparatively strong, solid, bifurcating branches, varying from an eighth of an inch to more than half an inch in diameter, and attached by the base to foreign substances by a spreading, root-like expansion. The branches are densely covered by medium sized, moderately elevated, not confluent tubercles, which usually measure about a line, or a little more than a line, from center to center; or, if measured in a direct series, numbering from ten to twelve in the space of an inch. The entire surface of the branch, except the top of the tubercles, is marked by fine rounded pits or pores of a nearly uniform size, divided by thickened walls, often slightly flattened on the edge; the pores number from six to twelve between the tubercles. The area on the top of the tubercles not occupied by pores is irregular in form, about one-fourth to one-third of a line across, and is marked by fine, closely arranged puncta, which forms a distinctive character of the species.

Formation and locality. In soft shale of the Hudson river formation at Delafield, and also at Iron Ridge, Wisconsin.

Monticulipora multituberculata, n. sp.

Corallum growing in strong, solid, more or less flattened stems or branches, with frequent and irregular bifurcations. Surface of the stems covered with rather strong and prominent, rounded tubercles with concave inter-spaces. Cells of medium size, polygonal in form, and numbering from ten to fourteen in the space of an eighth of an inch, those situated on the tubercles not differing materially from those on the inter-spaces. Cell-walls thin and sharp, without any appearance of inter-cellular pits or pores, and elevated at the angles of the cells to form low points. Cell-tube divided by transverse partitions, which in the outer part are placed at distances about equal to the diameter of the tube.

Formation and locality. In shales of the Hudson river formation at Delafield, Wisconsin.

Alveolites irregularis, n. sp.

Corralum forming solid, flattened branches of irregular form, or incrusting other substances and partaking of the form of such bodies. Cells minute, from twelve to fifteen in the space of a tenth of an inch, more or less rhombic in form, moderately recumbent and diverging from imaginary centers; the posterior lip slightly elevated and acutely angular. Surface often marked at irregular distances, usually of a tenth of an inch or more, with indistinct maculæ, composed of a few cells having thicker walls and somewhat more elevated than the intermediate ones.

Formation and locality. In greenish shales of the Hudson river group, at (151) Wisconsin.

Hemipronites Americana, n. sp.

Shell of medium size, subparaboloid or subquadrangular in outline, hinge-line straight, and as long as the width of the shell below, the sides of the shell somewhat straightened and the front rounded or round-truncate. When viewed in profile the form is plano-pyramidal, the dorsal side flat or even depressed along the middle with a narrow or linear area. Ventral valve pyramidal, half as high as long and having a small, pointed and slightly incurved beak. Area high, with a large closed deltidium. Surface of the shell marked with fine radiating striæ, which are crossed by strong concentric lines of growth at irregular intervals.

Formation and locality. In the upper portion of the Trenton group (Galena horizon), at Flintville, Wisconsin.

Strophomena Kingi, n. sp.

Shell larger than medium size, measuring two inches along the hinge in full grown specimens. Valves strongly concavo-convex, approaching sub-hemispherical on the ventral side with a full rounded umbo, length and breadth sub-equal, or often wider than long; hinge line as long or longer than the shell below, and generally somewhat pointed at the extremities. Area narrow on each valve, that of the convex-valve the largest and marked in the middle by a broadly triangular foramen. Valves rather strongly recurved or deflected near the hinge extremities, so as to give a strongly sinuous hinge-line as seen in a cardinal view. Dorsal

valve deeply concave, closely following the curvature of the ventral. Surface of both valves marked by very fine, even, thread-like or wiry striæ, without any indication of alternation. These are crossed by finer concentric rugose markings invisible to the unassisted eye, and also by fine, indistinct and interrupted concentric undulations on each valve.

Formation and locality. In shales of the Hudson river formation, at Delafield, Wisconsin.

Rhynchonella perlamellosa, n. sp.

Shell of medium size, triangularly-orbicular or very broadly ovate in outline, and lenticular to ventricose in profile; beak small, flattened and closely incurved; cardinal slopes convex and full, never depressed or excavated. Dorsal valve with a moderately elevated mesial fold extending nearly to the beak, and the ventral with a corresponding sinus. Surface marked by strong, simple, subangular plications, four of which are elevated to form the fold and three depressed in the sinus, while from six to eight occur on each side of the shell; plications crossed by rather coarse, distant, strongly lamellose lines of growth, strongly arching backwards in crossing the plications, and continuing across the cardinal slopes to the margin of the shell with but slight diminution in strength.

Formation and locality. In soft shales of the age of the Hudson river group of New York, at Delafield, and also at Iron Ridge, Wisconsin.

Cypricardites megambonus, n. sp.

Shell of medium size, very oblique, ovate in outline and very ventricose in profile, with large tumid, obliquely enrolled beaks, situated a little anterior to the center of the hinge, and strongly projecting above the cardinal line. Valves very deep and very ventricose along the prominent and obtusely rounded umbonal ridge, with a broad, abrupt and slightly concave cardinal slope, and convex, but rapidly declining antero-basal surface; anterior end rapidly sloping backwards, uniting imperceptibly with the basal curve; posterior margin extending obliquely backwards from the extremity of the short hinge line to the postero-basal angle. Surface marked by irregular concentric lines of growth. Hinge plate marked by two or three short, oblique cardinal teeth, and by two

long, curved posterior teeth in the right valve, as shown by the internal cast; muscular imprints rather faint; ligumental area rather small.

Formation and locality. In the Buff limestone of the Trenton group in the upper part of Carpenter's quarry, and also more abundantly at Hess' quarry, near Beloit, Wisconsin.

Metoptoma perovalis, n. sp.

Shell of medium size, oval or elongate-oval in outline, a little more than half as wide as long and about one third as high as the greatest width. General surface depressed convex; anterior end very slightly truncate from below the apex to the anterior margin, giving a slightly flattened and concave anterior slope. Apex small, situated very near the anterior end and slightly overhanging the anterior slope. Surface of the shell smooth so far as can be determined from the specimens in hand.

On the internal cast, the muscular scar is seen as a narrow, scarcely elevated band passing just below the apex on the anterior side, and extending back to near the middle of the length, where it widens and forms a broader band around the posterior half of the cast, at about midway between the apex and the posterior margin. Length of the largest specimen nearly one and one-fourth inches.

Formation and locality. In the lower part of the Lower Blue limestone of the Trenton group, below Carpenter's quarry, Beloit, Wis.

Trochonema Beloitensis, n. sp.

Shell moderately large, with a rather low spire, the entire height of the specimen being somewhat less than the diameter across the base. Volutions about three in number, ventricose, about as high as wide, the outer one increasing in size more rapidly than the preceding, obscurely flattened on the periphery, slightly concave above, and rounded below and on the inner and basal surfaces; suture line very distinct and well marked. Base of the shell gradually rounding into, and forming a deep umbilical cavity, with a rather small central perforation. Aperture rounded and very oblique, not modified by the preceding volution, but apparently having the outer lip slightly expanded. Surface of the cast marked by obscure transverse lines, indicating stronger lines of growth, parallel to the margin of the aperture.

Formation and locality. In the Buff limestone of the Trenton group, at Hess' quarry, near Beloit, Wisconsin.

Olisospira accidentalis, n. sp.

Shell small, sinistrally coiled, spire conical, the apical angle being nearly ninety degrees; volutions from two to two and a half, flattened on the back in the direction of the apical angle, or very slightly convex between the suture lines, and sharply angular on the periphery. Suture distinct on the internal cast, the only condition in which the species has been observed. Base of the shell concave, base of the volution, between the edge of the shell and the axis, very slightly convex, and the axis in the cast minutely perforated, but probably solid in the perfect state. Surface of the cast marked with indistinct undulations, representing lines of growth, which pass rapidly backward, with a broad gentle curvature from the suture to the basal angle; traversing about one-third of the volution between the two points, and indicating a very oblique aperture.

Formation and locality. In the Buff limestone of the Trenton group at Carpenter's quarry, Beloit, Wisconsin.

Maclurea cuneata, n. sp.

Shell of medium size, attaining a diameter of three inches, and consisting of two or more volutions, which increase very rapidly in size; lower (?) side of the shell flat or very slightly concave between the suture-lines; the opposite side being depressed conical between the outer margin and the central depression, with a very slight convexity of the intermediate surface; outer margin of the volution sharply cuneate; central depression very small in the casts, leaving but little more space than would be occupied by the thickness of the shell. Transverse section of the volution triangular.

Formation and locality. In the upper portion of the Trenton group (Galena limestone), at Whitewater, Wisconsin. I have also seen a similar specimen from the same horizon at Dubuque, Iowa.

Maclurea subrotunda, n. sp.

Shell rather below the medium size, attaining a diameter of only about one and a half inches, and composed of two very rapidly

increasing volutions, which are almost twice as high as wide; the outer one being nearly vertical on the periphery as it approaches the aperture, and then rapidly rounding on the base and to the very small central depression. Lower (?) surface of the volutions flattened, the two volutions being on the same plane. Surface of the shell not determined.

Formation and locality. In the upper portion of the Trenton group (Galena limestone), at Whitewater, Wisconsin.

Bellerophon Wisconsinensis, n. sp.

Shell of medium size, rather closely coiled, globular in form when young, but becoming strongly bilobed and the lip laterally expanded in the adult form; anterior margin of the aperture broadly and deeply sinuate, and more deeply notched in the middle; periphery of the outer volution marked by a broad, somewhat elevated, and flattened, or slightly convex revolving band, extending along the sides of the deep notch in the aperture. Umbilicus small but in the cast showing of medium size from the removal of the substance forming the axis. Surface of the shell apparently marked by concentric lines of growth parallel to the border of the aperture.

Formation and locality. In the blue beds of the Trenton limestone below Carpenter's quarry, near Beloit, Wisconsin.

Bucania (Tremanolus?) Buelli, n. sp.

Shell of moderate size, composed of from three to three and a half closely coiled, appressed volutions, the last one of which is somewhat more ventricose than the preceding, and broadly expanded or trumpet-shaped at the aperture. Transverse section of the volutions broadly elliptical or reniform, the lateral margins obtuse or subangular, and the ventral surface slightly concave from close contact with the inner coils; the lateral diameter varies from once and a half to nearly twice the dorso-ventral diameter in different parts of the shell. Umbilical openings broad and deep, exposing all the inner coils; suture between the volutions sharply marked. Aperture circular or subcircular, slightly notched in front and moderately elevated along the middle on the exterior; the posterior side slightly modified by the intrusion of the preceding volution. Dorsal surface of the last volution marked by a long, nar-

row slit or opening, extending along the outer half of the whorl and reaching to within about half an inch, more or less, of the margin of the aperture, the edges of the slit being slightly elevated above the surrounding parts of the volution.

Surface of the outer volution marked by raised revolving lines, which originate in fine striæ on the smaller parts of the volution, and rapidly increase in strength toward the aperture; where they become strongly developed and distinctly alternate in size. There are also finer concentric striæ crossing and cancellating the revolving lines.

Formation and locality. In the Upper Buff limestones of the Trenton group, at Hess' quarry, near Beloit, Wisconsin.

Hyolithes Baconi, n. sp.

Shell of moderate size, measuring from one inch to one and a half inches in length, with a diameter at the aperture from one-fourth to one-third of the length. Dorsal side of the shell depressed convex, more abruptly rounded near the margins and on the edges, the surface marked by transverse striæ which arch gently forward and are parallel to the margin of the dorsal extension; dorsal projection regularly rounded and one-third as long as the width of the aperture. Ventral surface about twice as deep as the dorsal, strongly subangular along the middle and the surface marked by transverse striæ which are directed nearly straight across the shell. Transverse section of the tube subtriangular or triangularly elliptical.

Formation and locality. In the harder bluish buff layers of the Trenton group, below Carpenter's quarry, near Beloit, Wisconsin.

Orthoceras (Actinoceras) Beloitense, n. sp.

Shell large and robust, subfusiform, moderately expanding to the diameter of about four inches, then more gradually decreasing in size to the aperture. Section oval in all the examples noticed, and usually a little more flattened on one side than on the other, with the siphuncle submarginal on the flattened side. Septa shallow and not often symmetrically arranged, from seven to eight chambers occupy a length equal to the diameter of the largest of the number measured; toward the outer portion of the shell the septa become more crowded, and just below the outer chamber are some-

times less than half the usual length. Siphuncle large, strongly beaded within the chambers, with an inner core, in the casts, having radiating filaments extending to the center of the bead in each chamber. Surface of the shell unknown.

Formation and locality. In the Trenton limestone (Buff beds), at Hess' quarry, near Beloit, Wisconsin.

Gyroceras duplicostatum, n. sp.

Shell rather small, seldom exceeding two and a half inches across the coil; consisting of one and a half to two or more slender, moderately increasing, loosely coiled volutions, which are not in contact and gradually increase in distance with the increased growth of the shell. Section of the shell circular and of from half an inch to five-eighths of an inch in diameter at the end of one and a half volutions. Surface of the shell marked by closely arranged, sharply elevated, rounded encircling costæ, with wider interspaces, which are mostly occupied on the dorsal half of the shell by smaller additional or intercalated costæ, not extending beyond the middle of the side; costæ bending slightly backward in crossing the side of the volution from the inner to the outer surface, and strongly arching forward in crossing the dorsum.

Formation and locality. In the Trenton limestone at Bristol, Dane county, and in the bluish-buff beds below Carpenter's quarry, near Beloit, Wisconsin.

SPECIES FROM THE NIAGARA GROUP.

Favosites occidentis, n. sp.

Corallum, growing in hemispherical or irregularly formed masses of medium size, which are composed of two kinds of cells, the one larger than the other; the larger cells being scattered through the corallum at somewhat irregular intervals, with from one to three of the smaller cells between. Large cells, more or less circular in form, and usually measuring from a sixteenth to a tenth of an inch in diameter. Smaller cells, variable in form and in size, may be observed from minute to more than two-thirds that of the larger form. Transverse diaphragms complete, closely arranged or distant more than the diameter of the tube, in the same individual. Mural pores apparently arranged in single rows, but not very distinctly

observed, owing to a deposit of minute crystals of dolomite on the walls of the cells.

Formation and locality. In the upper part of the Niagara group (Guelph horizon) near Ozaukee and elsewhere in Wisconsin. It is not exclusively confined, however, to this horizon, but occurs sparingly, as small individual masses, in the upper part of the true Niagara formation. at several localities in the state.

Syringopora infundibula, n. sp.

Corallites growing in large or medium sized masses, of variable form, but generally irregularly sub-hemispherical; the individual polyps slender, subflexuose, and measuring from one to nearly two lines in diameter, arranged at distances of from one to three times their own diameter from each other, with small, slender, rounded and distant connecting filaments; longitudinal rays or lamellæ entirely obsolete; transverse diaphragms deeply funnel-formed, appearing as a series of inverted cones placed one within the other, their centers extending downwards and forming by their union with each other a continuous columella-like body. The plates are so closely arranged that from two to four of them may be counted in a space equal to the diameter of the corallite. The external surface of the tube has not been observed.

Formation and locality. In the upper part of the Niagara group (Racine limestone) at several points in the vicinity of Milwaukee, Wisconsin.

Cyathaxonia Wisconsinensis, n. sp.

Among the many cyathophylloid corals of the upper Niagara formation, represented only by casts of the interior of the cup, is one having a deep elliptical cavity near the center, which has been formed by the removal of a thin, transversely elliptical and highly elevated, solid and sub-central axis, as in the genera *Cyathaxonia* and *Lophophyllum*, presenting a feature entirely new, so far as we are aware, among the corals of the middle Silurian rocks of this country. The coral must have attained a length of three inches or more, by a transverse diameter, of one and one-fourth inches, judging from the size of the casts of the cup observed. The vertical lamellæ have been strong and arranged in pairs, the secondary layers being quite subordinate to the primaries. A large deep fosset

marks the bottom of the cup on the convex side, and the upper transverse plate forming the bottom of the cup has been smooth and nearly half as wide as the coral opposite the base of the cup.

Formation and locality. In the upper part of the Niagara group, (Racine limestone) at Racine and elsewhere in Wisconsin.

Amplexus fenestratus, n. sp.

Corallum forming strong, simple, irregularly turbinate columns, often attaining a diameter of two and a half to three inches, and apparently twelve or more inches in length, with distant, strongly projecting, periodic lip-like varices, above each of which the coral is again contracted; cup deep, margin thick, except near the periodic varices, where it becomes much thinner than at other points; longitudinal rays well developed, very closely arranged, and apparently subequal; transverse plates large and strong, closely arranged, and extending to about one-half the diameter of the body. Interlamellar cystose divisions well developed and very numerous. Exterior of the coral covered, when perfect, by a thin epitheca, marked longitudinally by the rays, and transversely by small elevations at the junction of the walls of the inter-lamellar cysts with the epitheca, which is generally worn through, or originally left imperfect, the spaces appearing as minute transverse or elliptical perforations in the epitheca, giving a peculiarly roughened exterior surface, which will readily be distinguished.

Formation and locality. In the lower coral beds of the Niagara group, at Cato, at Cato Falls, and at the rapids below Clark's Mills and vicinity, Wisconsin.

Amplexus annulatus, n. sp.

Corallum simple, elongate-turbinate in form, more or less curving throughout; from one and a half to three inches in length, by about five-eighths of an inch in diameter, seldom attaining more than three-fourths of an inch; the lower inch of the length much more rapidly expanding than above, where it is sometimes sub-cylindrical. Exterior surface very distinctly and strongly annulated, presenting somewhat the appearance of a species of a *Cornulites*. Longitudinal rays, numerous and moderately well developed, extending only a short distance from the walls of the polyp; transverse partitions, distinct and strong, occupying by far the larger part of the

diameter of the cup, rather distantly arranged, their distance from each other often equaling half the diameter of the tube, and more or less curved or irregular. External cup comparatively deep.

The strongly annulated external surface of the corallum is quite a distinguishing feature.

Formation and locality. In the Guelph limestone at Sheboygan and Carlton, Wisconsin; and elsewhere at the same horizon.

Stricklandinia multilirata, n. sp.

Shell of medium size but very diverse in form, varying from longer than wide to nearly one-third wider than long, and from depressed biconvex with nearly equal valves to extremely gibbous, with the ventral valve very much the deepest, as seen in profile. Hinge line straight, usually longer than the width of the shell, and often with mucronate extremities, but is frequently seen much shorter than the width of the shell below; front of the valves slightly protruding beyond the general contour, or subtruncate. Area of the ventral valve distinct but not wide. Dorsal valve with an inconspicuous or depressed umbo, and a moderately wide, poorly defined and slightly elevated mesial fold. Ventral valve more convex, with a deeper, more conspicuous and often subangular mesial depression, but a not at all prominent beak. Surface of the shell marked by numerous, distinct but not strongly marked, bifurcating, radiating plications both on the sides of the shell and on the mesial fold and sinus; the number not constant, but usually from four to six in the space of one-fourth of an inch on the margin of the shell; spoon shaped process in the interior of the ventral valve, as shown by the cavity left in the casts by the removal of the substance of the shell, distinct but not large.

Formation and locality. In the upper Niagara (Guelph), at Sheboygan, Wisconsin.

Leptodomus undulatus, n. sp.

Shell of rather more than medium size, obliquely broad-ovate in outline and highly convex; hinge-line short, not more than half as long as the shell below; beak broad and strong, but not at all prominent or projecting, situated near the anterior extremity, slightly enroled and directed forward; umbo prominent below the beak;

anterior margin of the shell rapidly sloping backward with a convex curvature, and with the basal and posterior margin forming two-thirds of an elliptical curve; posterior margin sloping rapidly backward from the extremity of the hinge-line, and rounded below; umbonal ridge prominent and rounded; cardinal slope abrupt and slightly concave just behind the beak. Surface marked by a few strong, regularly rounded concentric undulations parallel to the margin of the shell, and regularly increasing in strength with the increased size of the shell.

Formation and locality. In the Niagara limestone (Racine), at Wauwatosa, Wisconsin.

Enomphalus macrolineatus, n. sp.

Shell large and robust, subdiscoidal with a depressed convex spire, composed of about three strong, rounded or elliptical volutions, the inner one rising but little above the next succeeding, and the last more rapidly increasing in size; transverse section of the volution apparently broad-ovate, being more sharply rounded on the outer side than above; suture lines strongly marked. Under side of the shell unknown. Surface of the volutions marked with strong, distant, angularly elevated, revolving lines or ridges, with concave interspaces on the top and sides; those on the upper side of the impression of a fragment where the volution has been a little more than one inch in diameter are about one-sixth of an inch from crest to crest. Transverse lamellose striæ are observed crossing the revolving lines and apparently rising into points on the ridges.

One fragment in the collection indicates a shell of more than four inches in diameter. The large size and strong revolving lines will readily distinguish this from any other American species.

Formation and locality. In the Niagara group (Racine), at Kuntz's quarry, Manitowoc Rapids, Wisconsin.

Raphistoma Niagarensis, n. sp.

Shell of rather large size, trochiform or sub-discoidal, depressed convex above and below, and acute on the periphery; transverse diameter almost twice as great as the height of the shell, measured from the base of the aperture to the top of the spire. Volutions about three, sub-triangular in section and slightly wider than high

the upper surface very slightly convex between the suture line and the edge of the shell; lower side of the volution a little more rounded than the upper, to near the margin of the umbilicus, where it is more sharply rounded into the cavity, and vertical above. Umbilicus small and deep, exposing all of the inner volutions. Aperture sub-triangular, most acute at the outer edge, rounded on the lower inner border, and slightly modified on the upper side by the preceding volution, which is apparently overspread by the inner lip. Columellar portion thin and nearly vertical. Margin of the lip thin and sharp, strongly receding from the suture to the exterior angle of the volution, with a distinctly sigmoidal curvature, both above and below. Substance of the shell thin. Surface marked by fine striæ of growth parallel to the margin of the aperture, and also by revolving lines, which on the upper surface of the outer volution are about half a line apart, and on the under surface are finer and more numerous.

Formation and locality. In the Niagara group, eastern Wisconsin.

Holopea magnaventra, n. sp.

Shell of large size, ventricose and robust in habit; spire low or depressed — convex, volutions about three, very rapidly increasing in size and strongly rounded on the periphery; suture distinct but not deep; aperture subcircular or very broadly ovate, pointed above where it is slightly modified on the inner side by the preceding volution; umbilicus probably closed, and apparently covered by a callous on the overspreading columellar lip, as indicated by the form of the cast. Surface of the shell, as far as can be determined by the specimens, marked only by transverse lines of growth.

Formation and locality. In the uppermost beds of the Niagara group (Guelph limestone), at Carlton, Wisconsin.

Toxonema magnum, n. sp.

Shell very large and robust, spire highly elevated and rapidly ascending, the rate of increase being very gradual. Volutions in the lower part proportionally long, entire number unknown, very depressed convex on the external surface; columella prolonged below, giving an elongate-pyriform aperture; suture between the volutions, as seen on the internal casts, moderately wide, indicating a shell of considerable thickness. Surface features unknown.

Formation and locality. In the higher portions of the Niagara group (Guelph limestone) in Sec. 28, Carlton township, Wisconsin.

Pleurotomaria Racinensis, n. sp.

Shell of medium size, composed of from three to three and a half volutions, which increase very gradually in size with the increased age of the shell, and are subquadrangular in a transverse section. Spire very low, the entire height of the shell equaling only about one-half of the transverse diameter. Volutions flattened on the upper surface, and very rapidly sloping on the outer surface, the edge being nearly vertical; under surface, very depressed convex, more rapidly rounded within the broad umbilical cavity. Along the lower peripheral angle of the volution, as seen on the internal cast, there occurs a thin, sharp carina, indicating the presence of a revolving groove in the shell, and probably a slit in the margin of the lip. Surface of the cast marked on the nearly vertical exterior margin by distant, vertical ridges, at regular intervals of about one line on the outer volution of the specimen figured.

Formation and locality. In the Niagara group (Racine limestone), at Racine, Wisconsin. There is also a form undistinguishable from it, in beds, referred to the lower part of the formation, two miles south of Little Sturgeon Bay.

Pleurotomaria Laphami, n. sp.

Shell of medium size, spire conical and moderately elevated, the apical angle being about forty-five degrees, or a little less. Volutions three and a half to four, subtriangular, flattened exteriorly in the direction of the apical-angle, subangular on the periphery and rounded below; suture indistinctly marked on the exterior of the shell as shown by the impression left in the stone, but very distinct on the cast of the interior; aperture rounded triangular; umbilicus proportionally large. Surface of the shell smooth or marked only by fine striæ of growth.

Formation and locality. In the limestones of the Niagara group, at Ashford railroad cut, Ashford, Wisconsin.

Murchisonia Chamberlini, n. sp.

Shell very large and robust and of a general oval form, the example from which the description is taken being a cast made in the

natural mould left in the rock by the removal, by solution, of the shell, and measures about four inches in length by about two inches in its greatest diameter. Spire moderately elevated, the apical angle being about thirty or thirty-five degrees; volutions about six, strong and highly convex, and marked on the periphery by a strong distinct, moderately elevated, revolving band which produces a slight angularity on the upper volutions. Aperture large, broadly ovate, prolonged below, and the lip distinctly rimate. Columella strong, slightly curved below and spreading upon the body volution in the upper part, but becoming free in the lower portion, leaving a distinct umbilical cavity behind, which is open to the entire length of the spire, and in the cavity left in the rock by the decomposition and removal of the shell, had left a strong spiral core of stone, which had filled it, three-eighths of an inch thick in the lower part, remaining supported in the center by the cavity. Minute surface markings of the shell not preserved, but remains of lines of growth can be faintly traced.

Formation and Locality. In limestone of the upper portion of the Niagara group (Guelph limestone), near Carlton, Wisconsin.

Orthoceras Carltonense, n. sp.

Shell of moderate or large size, and moderately tapering, the rate of increase being about one-fourth of an inch in a length of two inches. Section circular; septa of moderate depth, and closely arranged, about eight chambers occupying a space equal to the diameter of the shell at the top of the upper one of those counted. Siphuncle unknown. Surface marked by longitudinal flutings, numbering about twenty-four in the circumference of the shell.

Formation and locality. In the upper portion of the Niagara group (Guelph limestone), at Carlton, Kewaunee county, and at Ozaukee, Wisconsin.

Cyrtoceras rectum, n. sp.

Shell of moderate size, nearly straight in form and ovate in transverse section, the lateral diameter being about three-fourths as great as the dorso-ventral, and the greatest width being on the inner side of a central line; curvature of the tube on the inner face scarcely perceptible, and the rate of increase in diameter, in the dorso-ventral direction, about an eighth of an inch, in a length of two inches; septa flat in a lateral direction, but strongly arching

along their dorso-ventral axis, so arranged that about nine chambers occupy a space equal to the dorso-ventral diameter of the outer one counted. Outer chamber not constricted at the aperture so far as observed; siphuncle proportionally large and expanded within the chambers, situated at about its own diameter from the inner or shorter curved surface of the shell. Surface features not observed.

Formation and locality. In the upper portion of the Niagara group (Guelph limestone), at Carlton, Kewaunee county, Wisconsin.

Phragmoceras Hoyi, n. sp.

Shell of medium size or smaller, very rapidly expanding, strongly curved and broadly ovate in a transverse section, rounded on the back and sharply subangular on the inner side of the curve. Outer chamber most rapidly expanding on the inner side from the base to the extremity of the lip, so that the dorso-ventral diameter at the summit is nearly once and a half greater than at the base of the outer chamber. Expansion of the aperture on the inner end, small and transverse, that of the opposite end large and ovate; connecting slit short and narrow, the contraction of the chamber approaching the slit being abrupt. Septa concave, the chambers being about three times as deep on the outer curve as on the inner side. Siphuncle small, marginal on the inner curved surface, and situated in the angularity of the transverse section. Surface marked by transverse striæ, which are strongly arched upwards on the sides of the shell a little within a central line, and very broadly curved downward on the back.

Formation and locality. In the upper part of the Niagara group (Racine limestone), at Schoemacher's quarry, near Wauwatosa, Wisconsin. A similar form but with a more compressed section and more protruding and laterally compressed lip on the inner side, occurs at Busack's quarry, which we propose to designate under the varietal name *compressum*—*P. Hoyi* var. *compressum*.

Phragmoceras labiatum, n. sp.

Shell rather below the medium size, rapidly expanding from below upward, and but slightly curved in its form; very regularly oval in a transverse section, lateral diameter about three-fourths as great as the dorso-ventral diameter. Outer chamber of the shell a little

wider than high, closely compressed at the top so as to entirely close the opening of the aperture along the center of the summit in some cases. Ventral opening forming a slightly expanded lip-like tube. Dorsal opening large and tubular, the tube being short and broad, and appearing as if it had been forcibly inserted into the body chamber, so as to leave a sharp, distinctly impressed suture-line at the junction. The lower side of the tube forms a section of an oval figure, while the upper half is deeply impressed on each side of the central slit or opening, giving a deeply trilobed form to this part of the tube. Septa moderately concave, arranged so that about six chambers occupy a space equal to the lateral diameter of the outer one counted. Siphuncle rather small and submarginal. Surface of the shell unknown.

The form of the apertural tubes is a distinguishing feature.

Formation and locality. In limestones of the Niagara group at Ashford, Fond du Lac county, Wisconsin.

Illænus pterocephalus, n. sp.

Cephalic shield short, broad, and of unusual depth, when viewed in its natural position with the occipital border forming a vertical line; the distance from the under surface of the head to the highest part of the glabella being, nearly or quite, twice that from the occipital line to the anterior margin. The extreme width of the head including the movable cheeks is equal to three and a half times the length. Movable cheeks small, forming thin wing-like expansions at the sides of the head and on a line with the occipital border, but so contracted anteriorly as to be scarcely more than half as long as the glabella; anterior margin and surface of the head rounded and highly convex in the middle, rapidly contracting in front of the eyes and expanding laterally along the occipital border. Glabella and fixed cheeks united but without the movable cheeks, elliptical or oval in form, very convex on the surface and nearly half as wide again as long, broadly rounded in front and strongly lobed in the posterior part by the dorsal furrows, which are short and directed inward, but are not visible on the cast beyond the posterior third of the head, as measured along the curve of the glabella. Eyes prominent and obtusely pointed as shown in the cast, and situated very near the posterior margin of the head. Facial suture, cutting the anterior margin considerably

within the line of the eyes and passing to the eye with a regular outward curvature; behind the eye it passes almost directly to the posterior margin. Thorax and pygidium unknown.

Formation and locality. In the Niagara limestone at Pewaukee, Wisconsin.

Bronteus Laphami, n. sp.

Entire form unknown, the specimens from which the following description is taken, consisting of fragments of the glabella and several imperfect pygidia.

Glabella short and broad, very depressed convex, the division of parts somewhat obscure. Anterior lobe very broad in front, and rapidly decreasing in width from its junction with the marginal rim to behind the middle of its length, where it is not more than two thirds as wide as in front; dorsal furrow obscure; posterior glabellar furrow well marked; occipital furrow distinct, and the occipital ring rather large. Fixed cheeks narrow, rather strongly lobed; anterior marginal rim of the head narrow and rounded, indistinctly separated from the anterior lobe of the glabella in the middle, but not definitely so at the sides, its surface rather strongly striated.

Pygidium paraboloid in form, and depressed convex, with an entire external margin; anterior border of the shield gently rounded and moderately convex on the surface, lobation distinct. Axial lobe short, rounded-obconical in form, more strongly convex than the lateral lobes, and marked by a single narrow articulating ring on the anterior end; lateral lobes gently convex on the inner part, more abruptly declining at about the outer third of their width, and slightly recurving again near the border; articulations very distinct, and directed strongly backward in their course to the margin, rounded on the surface and separated by short, deep depressions to near the border of the shield, just within which they become obsolete. The central rib, or that extending from the termination of the axial lobe, rapidly narrows for one-third of the length from the anterior margin of the shield, then more abruptly widens to the posterior margin, where there are very slight indentations in the external border corresponding to the depression at its sides. Near the middle of the length of this central articulation, or rib, there rises a central depression, or furrow, dividing it from this point

posteriorly into two divisions, presenting the appearance of a bifurcation.

Surface of the crust of the pygidium marked, on the lower part of the lateral expansion, by strong squamose concentric lines. Other portions of the plate smooth.

Formation and locality. In the Niagara group (Racine limestone), at Kewaunee, Wisconsin. Named in honor of the late Dr. I. A. Lapham.

APPENDIX.

IN MEMORIAM. — MOSES STRONG.

June 17, 1846.—Aug. 18, 1877.

The lapse of a geologic age is little to us save in the record it has left us. The infinitude of its days are of little moment if they form a "Lost Interval." The *record* is little to us save in its character. An eon of ages may have heaped up an immensity of sands, but if they have buried neither life nor treasure, it is but a Barren Interval. The years that formed the coal, the ore and the life beds, however brief among the eras of the earth's history, are more to us than all lost or barren intervals, however vast their cycles. So the eon of life. June 17, 1846 — Aug. 18, 1877. These are the limiting signs of human age. What is the record?

The earlier years of Mr. Strong's life, the period of fundamental intellectual deposit and moral accretion, were spent where the basal strata of character are best laid, at home.

His early training and instruction were largely received at hands of an intellectual father and a pious mother, the combination which best matures thought and develops morals. To this was added something of the cosmopolitan culture of the public schools. In his thirteenth year he entered the French and English school then located at Sauk City, where he acquired some knowledge of the rudiments of the versatile language of the French. A collegiate course had, however, been selected as an important feature of his education, and in his fourteenth year his studies were turned specifically in that direction under the tuition of the Rev. Mr. Skinner, then rector of the Episcopal Church at Mineral Point. The last few months of these preparatory studies were passed at Delavan in this state, whither Mr. Skinner had removed, and

some of the citizens of that place will recall the quiet, manner of the young student. Let it be noted that thus far, more than half the span of his life, he had been chiefly under the quiet but potent moulding power of parental and pastoral influence. Under these auspices the predominant traits of his character were formed and the most important part of his education accomplished, the education that looks toward manhood.

But, though the home is wide enough for the boy, the world is none too broad for the man, and Mr. Strong now entered upon that wider culture which was to fit him for the still broader school of life. In September, 1863 he was admitted to Yale College, in whose classic atmosphere he passed the succeeding four years. It was in our judgment a fortunate circumstance, in view of the fact that he subsequently turned his attention so largely to engineering and scientific studies, that so considerable an element of literary study entered into his course at this period. In the junior year of his college course, he selected the profession of mining engineer as his life pursuit, and during the remainder of his course his reading outside of his class studies, was mainly such as was germane to his chosen profession. Immediately after his graduation he was afforded an opportunity to engage in practical civil engineering in connection with the survey of a railroad line along the Mississippi, between La Crosse and Winona. This work, however, was cut short by sickness.

In the fall of the same year he returned to New Haven, and spent the year in the Sheffield Scientific School, in the study of natural science, higher mathematics, drawing, and kindred studies. In the pursuance of these studies he was much indebted to Prof. Brush of the chair of mineralogy and metallurgy, who had completed his education in Germany, and by whom Mr. Strong's desire to complete his own education in that country was stimulated to its consummation.

Mr. Strong sailed for Germany in July, 1868, and returned in the same month of the year 1870. His first year was spent in the mining school at Clausthal, in the Hartz mountains; and the second at the celebrated school at Freyberg, in Saxony. These two years afforded excellent facilities for the pursuit of his professional studies, both in the extensive mines and the ample laboratories.

Soon after his return from Germany, Mr. Strong engaged in the

practice of his profession, the survey of the extensive lead mines of Crawford, Mills & Co., at Hazel Green, being his first engagement. Upon the completion of this, he was entrusted by the firm with a financial mission to New York.

It was always the intention of Mr. Strong to pursue the work which he had planned for his life in the mines of the west, but his devotion to his parents, and his attachment to the home of his infancy and youth, and its domestic associations, were so great that he was reluctant to remove to so distant a field of labor, so long as he could be profitably engaged without permanently disturbing the ties and affections which bound him with such devotion to the scenes that had given so much pleasure to his earlier years.

Deeming a practical acquaintance with civil engineering, especially so far as relates to the location and construction of railroads, a valuable accessory to his profession, as mining engineer, he became associated for varying periods, and in different capacities, in the location of the Northern Pacific, the Wisconsin Central, and several preliminary lines in the lead region.

On the inauguration of the geological survey in 1873, Gov. Washburn, upon the recommendation of the late Dr. I. A. Lapham, then chief geologist, commissioned Mr. Strong as assistant state geologist. During the years 1873 and 1874, he was engaged chiefly in the examination of the lead region. In 1875 he extended his work, adjacent to the Mississippi, as far north as Trempealeau county.

The year 1876 was chiefly devoted to the Copper-bearing series in the northwestern part of the state.

The history of Mr. Strong's work during the past year, and of its calamitous close has already been given on a previous page. He fell in the midst of his work, in its active prosecution. His last notes were recorded but a few moments before they were submerged with him beneath the fatal rapids. The life passed away, but its latest record remained. These last recordings are marked by blanks. The formation had been described, but spaces were left for the location, which was not then determined. These blanks may be filled, but he has left other blanks we may not fill. He fell *pushing up the stream* — in fact and in symbol — not floating down it. *He stood at the prow*, pressing onward and upward, with duty for his motive and truth for his aim.

Of his investigations in connection with the survey, I need not speak. "Let his works praise him."

In character, he was modest and unassuming, and commanded respect rather by the merits he could not conceal than by any that were assumed. His quiet manner never revealed the real executive strength which he possessed. He accomplished more than he seemed to be attempting. His quiet self-possession gave steady and effective direction to his activities, and stood as a bar alike to the aberrations of mental confusion, the effervescence of merely emotional enthusiasm, and the turbulence of illusive energy. Judiciousness in the application, rather than the absolute amount of energy displayed, characterized his efforts.

His retiring disposition excluded aggressive personal ambition, and his self-assertion was limited to that called forth in the discharge of his duties. His personal advancement was due to inherent merit or the efforts of others, rather than to self-zeal and assurance on his part.

Candor and sincerity were eminent traits of his character, and honesty of expression marked alike his life and his language. His integrity was absolutely above question. No bond but his honor was requisite for the security of whatever trust was reposed in him. In attestation of his attractive personal traits, he enjoyed the warm friendship of his associates, and, in an unusual degree, the esteem of the community in which he was so well known.

In harmony with his whole nature, Mr. Strong's religious convictions were of the practical rather than the emotional type. Conscientiousness in the fulfillment of every relationship of life was the fundamental stratum upon which was erected the temple of his faith. In outward recognition of his persuasions, he became a member and regular communicant of the Protestant Episcopal Church.

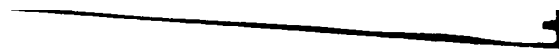
If he could have chosen the form of his departure, and could have so moulded it to best portray at once the soul of his ethical and religious views, he could perhaps have chosen nothing more fitting than that which the hand of destiny selected for him, to die from the perils that encompass duty, to die for his friend.

His domestic relations were most felicitous. Love given and received made his dwelling place a genial home. A kind father, a happy wife, and two lovely children, formed the hearth circle. The household Penates always seemed to smile. That they are now broken and veiled, is the saddest thought of this sad story.

BELOIT, January 6, 1878.

INDEX.

Accounts	49
Acknowledgments	49
Appendix — Memorial.	90
Botanical work	46
Chemical work	44
Clark, A. report of.	41
Crevice survey of lead region.	28
Drafting	45
Introduction	8
Irving, R. D. report of.	16
Letter of transmittal.	1
Microscopic lithology	44
Mining in the Lower Magnesian limestone	81
Paleontological work	45
Preliminary description of new species of fossils.	50
Present state of the work	49
Publication	47
Reorganization	15
Strong, Moses, work of.	9
Strong, Moses, death of.	12
Strong, Moses, biographical sketch.	90
Summary of field work	43
Survey in Barron and Chippewa counties.	10
Survey in Douglas and Bayfield counties.	8
Survey of crevices in lead region	28
Survey of the Flambeau river region.	15
Survey in North Central Wisconsin	41
Survey in Oconto county	88
Survey in Penokee Range	16
Survey in St. Croix and Dunn counties.	86
Survey of Upper St. Croix region	9
Survey on the west side of the Chippewa river.	16
Sweet, E. T. report of.	8
Whitfield, R. P. descriptions of new fossils.	50
Wooster, L. C. report of	86
Wright, Chas. E. report of.	88
Zoological work	45



ANNUAL REPORT

OF THE

BOARD OF TRUSTEES

OF THE

SOLDIERS' ORPHANS' HOME

OF THE

STATE OF WISCONSIN,

FOR THE

FISCAL YEAR ENDING SEPTEMBER 30, 1877.

MADISON, WIS.:

**DAVID ATWOOD, PRINTER AND STEREOTYPED.
1878.**

TRUSTEES OF THE HOME.

GEN. JAMES BINTLIFF,	.	.	.	.	.	J
COL. C. K. PIER,	.	.	.	.	.	F
COL. W. F. VILAS,	.	.	.	.	.	N

OFFICERS OF THE BOARD.

JAMES BINTLIFF,
PRESIDENT.

C. K. PIER,
VICE-PRESIDENT.

W. F. VILAS,
SECRETARY.

FERD. KUEHN,
TREASURER.

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TRUSTEES' REPORT.

TO HIS EXCELLENCY, HARRISON LUDINGTON,
Governor of the State of Wisconsin:

Another year has passed in the history of the administration of this benevolent trust; and, in pursuance of the obligation imposed by law, we herewith present our twelfth annual report. In our last report we stated that there were then upon the roll 45 orphans who were entitled to a pension of five dollars per month, as provided by chapter 72 of the general laws of 1874, and that the terms of 16 of that number would expire by limitation during the next year. As subsequent events proved, however, the record, on the fact of the age of one of the sixteen, was shown to be incorrect, so that only fifteen of the number have ceased to be entitled to pensions, still leaving thirty upon our roll. Of these, during the coming year 10 will arrive at the age of fourteen years, when the pension will cease. After the Home at Madison was discontinued and the children scattered, a copy of the law providing for the payment of the pension was sent to the address of each orphan entitled to it. Notwithstanding this fact, there are a number who come within the provisions of the law who have never applied for the amount due them. These pensions we have always been prepared to pay; but such a length of time has now elapsed that we regard it as doubtful if application ever be made. For this reason we deem it wise to use a part of this money in paying the pensions for the coming year; and, therefore, we shall not need any appropriation.

In accordance with the original intention of the trustees, the Ward and Smith bequests have thus far been distributed to the orphans without expense to them, so that those entitled to a share have received the full amount awarded. The original division was made upon a basis which entitled nearly seven hundred to a share

in this fund. At the close of last year, we had issued five hundred and twenty (520) certificates; and as three years had expired since the division was made, and after every effort possible had been put forth to reach each orphan entitled to an interest in the fund, we concluded that the limit of the number who are alive or within our reach had nearly been issued. But this number was nearly one hundred and fifty less than the record of the Home, on which the division was made, showed were entitled to a share. The fact that so large a proportion of the whole number had made no claim, satisfied us that we should have a considerable surplus of this fund left after paying all the certificates. We resolved, therefore, to make another division of ten dollars to each orphan; and, on the first of July, 1877, commenced to issue the certificates for that amount, which we designated as the "second series." Of the first series, entitling the orphan on becoming of age to draw from the State Treasurer the sum of \$45.00, with 5 per cent. interest from the date of the issue, we have received during the past year twenty new applications, which have been approved and certificates issued, making the whole number five hundred and forty (540); and an equal number of certificates of the "second series" have also been issued. The payment of these certificates contemplates a sum more than four thousand dollars larger than the principal of the Smith and Ward bequests when they were deposited by us in the treasury of the state. The increase to meet this sum has come, of course, from accumulated interest.

JAMES BENTLIFF,

President.

WM. F. VILAS,

Secretary.

SUPERINTENDENT'S REPORT.

To the Board of Trustees of the Soldiers' Orphans' Home:

GENTLEMEN:— In accordance with sec. 16, resolutions and by-laws of the Soldiers' Orphans' Home, approved May 1, 1867, I herewith present this the 12th annual report of the transactions of this office, on behalf of the wards of the state, former inmates of the "Home."

At date of last report, forty-five (45) children were reported as pensioners. By reason of age, fifteen (15) of these have ceased to draw state aid, leaving thirty (30) still to be provided for. During the year 1878, this number will be reduced to twenty (20).

The amount estimated to be sufficient to pay all claims up to March, 1879, is \$2,400. In consequence of eight orphans who are justly entitled to state aid, not applying for it, a fund of \$1,912.39 has accumulated. In view of this, we deem it best not to ask any appropriation.

Since the last report, three children placed in adopted homes during the existence of the institution have been restored to the care of relatives.

While the nature of our duties since the closing of the "Home," involving watchfulness, careful inquiry and laborious correspondence, has kept us more or less in direct communication with those for whose benefit it was founded, the work of the year just closed has brought a renewal of their acquaintance, and placed us in possession of facts concerning many of them as creditable to the beneficiaries themselves as the statement of those facts must prove pleasing and satisfactory to the originators and staunch friends of the institution.

In accordance with the resolution bearing date July 1, 1877, providing for a second distribution from the Ward and Smith Funds we have issued the "second series" of certificates of \$10 each, corre-

sponding in number to those of the first issue of which a large number have already been presented and paid. Of each series there have now been issued 540 certificates. To accomplish this work in the easiest manner possible requires much labor; but the work has been attended with unusual pleasure.

A thing so rare with the children in years past, they, in acknowledging the receipt of their additional ten dollars, are lavish in the bestowal of thanks, and emphatic in their praise of the state and its agents, who they insist have not for a moment lost sight of the orphans' interests, or failed to give them the full benefit of the trust funds committed to their keeping. Such expression of appreciation, called forth, as they are, by the acknowledged rectitude of your dealings, seem to compensate for the care and apparent thankless task of years as a reward of no other nature can.

With this pleasing feature is coupled the fact that a large majority of these children have become useful, industrious citizens, filling positions of responsibility and trust.

Many of the girls have married. Many more, urged on by the taste acquired in the Home schools for study and books, have pursued their education in the common and high schools of the state until they have placed themselves upon the list of successful teachers.

Others, again, preferring another line of study, have fitted themselves for music teachers. Not a few have mastered trades, or are filling clerkships; and so, treading the honorable walks of life, are securing a liberal support for themselves and, in many cases, assistance for their friends. Of the younger growth of girls, most are in comfortable homes, with the ordinary advantages for schooling.

Of the older boys, some have already served apprenticeships at trades and are in business for themselves. Others are holding responsible places as clerks and salesmen in the business houses of our own and other states. A few have continued studious and are now teaching. The larger part of the boys, however, are farmers, and, in this very honorable sphere, are becoming important factors. Of this latter class, by dint of their industry and the aid afforded by their United States pension, some have become quite forehanded and, at no distant day will rank with the well-to-do farmers.

These, then, are a few of the crumbs of the returning bread cast upon the waters through the agency of this public charity.

Through the courtesy of Hon. Ferd. Kuehn, state treasurer, I append such part of his financial report as applies to the Ward and Smith bequest, with a list of orphans to whom payments have been made during the year.

Respectfully,

R. W. BURTON.

FINANCIAL STATEMENT.

The receipts and expenditures in behalf of Soldiers' Orphans of Wisconsin, from October 1, 1876, to September 30, 1877, inclusive, correspond to the following:

RECEIPTS.		
1876.		
Oct. 1	Balance on hand	\$1,254 64
	Cash from—	
Nov. 24	State Treasurer	1,500 00
Mar. 19	State Treasurer	1,000 00
Aug. 27	State Treasurer	500 00
		<hr/> \$4,254 64 <hr/>
DISBURSEMENTS.		
Sept. 30	To orders paid Nos. 326 to 468, new series.....	\$2,842 25
	Cash on hand	1,412 39
	Total	<hr/> \$4,254 64 <hr/>

The following is a detailed statement of receipts and expenditures for the year ending December 30, 1877:*

* Detailed statement of receipts and disbursements, omitted from printed report in accordance with chapter 82, Laws of 1874.

SOLDIERS' ORPHANS' HOME.

RECEIPTS.		
Received from state treasurer on account of appropriation for 1876.....	\$3,000 00	.....
Received from state treasurer on account of appropriation for 1877	500 00	.....
Received from state treasurer for orphans at normal school.....	200 00	.....
Total		\$3,700 00
DISBURSEMENTS.		
Paid R. W. Burton, sup't, current expenses.....	\$3,500 00	.....
Paid James Bintliff, for support of orphans at normal school.....	200 00
		\$3,700 00

WARD & SMITH FUND.

Balance in bonds	\$21,000 00
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WARD & SMITH FUND INCOME.

RECEIPTS.		
Interest on Milwaukee city readjust. bonds	\$500 00
Interest on Milwaukee city reg. water-work bonds	350 00	.....
Interest on Pittsburgh city R. R. bonds	200 00	.....
Interest on Albany city bonds	120 00	.....
Interest on deposits in savings bank	205 05	.....
Total receipts	\$1,875 05	.....
Balance in fund October 1, 1876	3,834 98	.....
Total		\$5,210 03
DISBURSEMENTS.		
PENSIONS.		
Willard Abels	\$48 70	.....
Rosetta Beckwith	48 51	.....
Eva L. Briggs	48 91	.....
James Burt	49 03	.....
Oda Brown	49 37	.....
Alex. D. Colburn	49 13	.....
Alfred Collar	50 03	.....
Anna C. Ellis	49 05	.....
Wm. B. Faith	48 13	.....
Charles Fanning	49 50	.....
Lennie Gifford	49 87	.....
Ella J. Glines	48 05	.....
Geo. C. Glines	49 60	.....
John L. Hadaman	48 54	.....
Effie A. Hood	48 77	.....
Edwin Hill	48 94	.....
George Lusk	48 98	.....
Margaret Lusk	50 02	.....
Lowella Lockwood	49 73	.....
Josephine McManus	49 03	.....
James McDermott	49 13	.....
Alice Major	49 78	.....
Martha B. Nash	45 00	.....
Geo. W. Norton	48 37	.....
Johanna H. Nash	47 58	.....
Ora A. Osborn	47 23	.....
Albert J. Ormsby	48 80	.....
Matilda S. Owrey	49 04	.....
Alice B. Partridge	48 82	.....
Harriet J. Partridge	45 00	.....
Geo. W. Partridge	45 00	.....
Ida Pritchard	49 65	.....
Alice E. Proctor	58 65	.....
Mary L. Place	50 42	.....
Sophy Pfeiffer	49 80	.....
Fanny F. Roy	48 64	.....
Henry F. L. Roohr	45 00	.....
Charles G. Roohr	45 75	.....
Juliette Reckord	48 53	.....
Jameson Richardson	47 44	.....
Elizabeth Richardson	48 88	.....
Alonzo W. Riley	48 94	.....
Charles Specht	46 86	.....

Ward and Smith Fund Income—continued.

DISBURSEMENTS—continued.		
Florence E. Stillwell	48 05	.....
Charles B. Stevens.....	49 05	.....
Charles A. Smith.....	49 08	.....
Alice J. Skinner.....	45 00	.....
Lydia Skinner.....	50 02	.....
Ella L. Stoddard.....	49 88	.....
Rosa Tonnard.....	48 80	.....
Permella J. Tuttle.....	45 00	.....
Nettie M. Tubbs.....	49 84	.....
John W. Thayer.....	48 00	.....
Daniel W. Wilkins.....	48 83	.....
William Welsh.....	48 62	.....
Georgia A. Young.....	45 00	.....
Ida A. Young.....	46 18	.....
Fred W. Aufderheide.....	49 89	.....
Eva L. Barker.....	50 06	.....
Jason A. Cressey.....	49 13	.....
Sarah A. Drake.....	50 30	.....
Leafy Fansler.....	50 25	.....
Sophy G. Johnson.....	50 25	.....
Win. F. Johnson.....	50 16	.....
Georgianna Milleam.....	47 81	.....
Christina M. Nash.....	50 03	.....
Leonard D. Hall.....	49 88	.....
Alice Milleam.....	50 24	.....
Sarah Astel.....	10 00	.....
Warren Angell.....	10 00	.....
Carrie E. Bibbings.....	10 00	.....
Barton E. Boyd.....	10 00	.....
Lillie Boyd.....	10 00	.....
Ida Brockway.....	10 00	.....
Frank E. Brockway.....	10 00	.....
Maudie Blakesley.....	10 00	.....
John Becker.....	10 00	.....
Caroline Calkins.....	10 00	.....
Edwin H. Crane.....	10 00	.....
Clara E. Carl.....	10 00	.....
Charles E. Carl.....	10 00	.....
Benj. F. Curtis.....	10 00	.....
Warren Corse.....	10 00	.....
Olive M. Delap.....	10 00	.....
Sarah A. Drake.....	10 07	.....
Leafy Fansler.....	10 00	.....
Charles Fansling.....	10 00	.....
Jane E. Faith.....	10 00	.....
Ella J. Gilnes.....	10 00	.....
Geo C Gilnes.....	10 00	.....
Evelyn E. Gray.....	10 00	.....
Harriet Gray.....	10 00	.....
Francis F. Haldaman.....	10 00	.....
Ellen A. Hughes.....	10 00	.....
Frederica A. Hughes.....	10 00	.....
Almeda Hollenbeck.....	10 00	.....
Ida F. Hitchcock.....	10 00	.....
Watson H. Hitchcock.....	10 00	.....
Harriet J. Hitchcock.....	10 00	.....
Edwin Hill.....	10 00	.....
Jane E. Hall.....	10 00	.....
Effie A. Hood.....	10 00	.....

Ward and Smith Fund Income — continued.

DISBURSEMENTS — continued.		
Maria E. L. Hogoboom.....	\$10 00	.....
Sophy G. Johnson.....	10 00	.....
Eugene Ingersoll.....	10 00	.....
Calista Kellogg.....	10 00	.....
Timothy P. Lewis.....	10 00	.....
Ella Lockwood.....	10 00	.....
Nannie Lalor.....	10 00	.....
James A. McGowan.....	10 00	.....
Agnes E. McDonald.....	10 00	.....
Ida McDonald.....	10 00	.....
James McDermott.....	10 00	.....
Georgianna Milleam.....	10 00	.....
Sarah S. Milleam.....	10 00	.....
Kate Milleam.....	10 00	.....
Viola Mack.....	10 00	.....
Frank D. Mallo.....	10 00	.....
Alice Major.....	10 00	.....
George W. Marshall.....	10 00	.....
Martha L. Norton.....	10 00	.....
George W. Norton.....	10 00	.....
Ora Nichols.....	10 00	.....
Mary O'Connor.....	10 00	.....
Matilda S. Ourey.....	10 00	.....
Albert Ormsby.....	10 00	.....
Harriet J. Partridge.....	10 00	.....
Alice B. Partridge.....	10 00	.....
Alice E. Proctor.....	10 00	.....
Mary E. Proctor.....	10 00	.....
Ida Pritchard.....	10 00	.....
Theresa C. Place.....	10 00	.....
Mary L. Place.....	10 00	.....
Sophy Pfeiffer.....	10 00	.....
Caroline Pfeiffer.....	10 00	.....
Fanny F. Roy.....	10 00	.....
Emma J. Roy.....	10 00	.....
Eva L. Richey.....	10 00	.....
Charles G. Roobr.....	10 00	.....
Henry F. L. Roobr.....	10 00	.....
Mary Skinner.....	10 00	.....
Lydia Skinner.....	10 00	.....
Alfred W. Sipperly.....	10 00	.....
Charles Specht.....	10 00	.....
Ella L. Stoddard.....	10 00	.....
Mira Stetson.....	10 00	.....
Sadie I. Sheldon.....	10 00	.....
Nina Siggelkow.....	10 00	.....
Margaret Sanders.....	10 00	.....
Sarah F. Sanders.....	10 00	.....
Ella Sanders.....	10 00	.....
Mary E. Tracy.....	10 00	.....
Hattie Thorne.....	10 00	.....
Agnes Thorne.....	10 00	.....
Willie V. Tully.....	10 00	.....
Delia Van Dusen.....	10 00	.....
Daniel W. Wilkins.....	10 00	.....
Alice Wilkins.....	10 00	.....
James Burt.....	10 00	.....
George Burt.....	10 00	.....
John R. Baker.....	10 00	.....